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THE BAYOU GOULA SITE
IBERVILLE PARISH, LOUISIANA

GEORGE I. QUIMBY

FIELDIANA: ANTHROPOLOGY

VOLUME 47, NUMBER 2

Published by

CHICAGO NATURAL HISTORY MUSEUM

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Curator, North American Archaeology and Ethnology

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Preface

The Bayou Goula site is located on the west bank of the Mississippi River near the present-day village of Bayou Goula, in Iberville Parish, Louisiana. The site is stratified, with a Plaquemine period occupancy underlying an historic period settlement of Natchezan type.

In 1940-41 the Louisiana State Archaeological Survey undertook exploration of the Bayou Goula site. The Survey—a joint project of Louisiana State University and the Federal Works Projects Administration—was founded in October, 1938, and was directed by Dr. James A. Ford, now of the American Museum of Natural History. In the latter part of September, 1939, I joined the project, replacing Dr. Gordon R. Willey as State Supervisor. I was in immediate charge of the archaeological laboratory, and in the absence of Dr. Ford, from the spring of 1940 to the termination of the project in July, 1941, I had the general direction of the laboratory and the three field units, as well as the responsibility of sometimes processing field collections for the Lower Mississippi Archaeological Survey, then at work in Arkansas and Mississippi.

The artifacts and records of the Louisiana Survey's excavations at the Bayou Goula site were deposited at Louisiana State University in Baton Rouge. However, in 1948, significant type collections, field records, and laboratory analyses of Bayou Goula site materials were transferred to Chicago Natural History Museum.

The excavation of the Bayou Goula site was under the immediate supervision of Dr. Edwin B. Doran at first, and later, of Dr. Carlyle S. Smith. Artifacts from the site and other data were processed in the University laboratory under the supervision of Mr. Walter W. Beecher, and ethno-historical data concerning the site were compiled by Dr. Andrew C. Albrecht. Dr. James A. Ford and I analyzed and interpreted the evidence, made comparative studies, and prepared preliminary reports on the site. Completion of a final report was delayed until 1954.

I desire to acknowledge my gratitude to the many men who worked on the problem of the Bayou Goula site and particularly to Dr. Andrew C. Albrecht, Mr. Walter W. Beecher, Dr. Edwin B. Doran, Dr. James A. Ford, and Dr. Carlyle S. Smith. Dr. Smith has been of considerable assistance in the preparation of this report.

I wish to thank Dr. Henry V. Howe, Director of the School of Geology, and Dr. Fred B. Kniffen, Chairman of the Department of Cultural Geography and Anthropology, Louisiana State University, for generously releasing to Chicago Natural History Museum the data and type collections used in preparing this report. For publishing this report I am grateful to Chicago Natural History Museum; its President, Mr. Stanley Field; its Director, Dr. Clifford C. Gregg; and its Chief Curator of Anthropology, Dr. Paul S. Martin. I also wish to thank Miss Lillian A. Ross, Associate Editor of Scientific Publications, for her editorial work in my behalf.

GEORGE I. QUIMBY

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I. Introduction

In 1940-41 the Louisiana State Archaeological Survey undertook the exploration of an historic site near the village of Bayou Goula in Iberville Parish, Louisiana (fig. 33). Previous investigations by the Survey had confirmed and elaborated the sequence of lower Mississippi Valley cultures established earlier by J. A. Ford (Ford, 1935, 1936). At the time of the excavation of the Bayou Goula site this cultural sequence was as follows: Natchez (historic), Plaquemine, Coles Creek, Troyville, Marksville, Tchefuncte (oldest).

The Survey had by this time obtained a reasonably broad picture of Marksville, Troyville, and Coles Creek. The Tchefuncte and Plaquemine cultures, though still in the process of formulation, were nevertheless clearly recognizable. But the culture of the historic period was relatively unknown except for Ford's earlier investigations (Ford, 1936) in the northern part of the lower Mississippi Valley. Accordingly, in 1940, the Survey set out to find an historic site in the southern part of the lower Mississippi Valley.

Finding the best site to excavate was a mixture of ethno-historical documentation and archaeological prediction. Dr. Andrew C. Albrecht, using late seventeenth century sources, chiefly the journal of Iberville, the log-book of the frigate *Le Marin*, and the diary of Father du Ru, was able to locate a general area in which there had been a large village occupied by the Bayougoula and a number of other tribes, some of whom were closely related to Natchez and Choctaw. Next, Dr. Doran was instructed to search this general area and particularly to look for a site containing European trade goods and pottery similar to that found by Ford at sites near Natchez in the upper part of the lower Mississippi Valley.

Surprisingly enough, the site fulfilling the requirements of the ethno-historical description and containing Natchezan pottery as well as European trade goods was found by Doran on the edge of the present-day village of Bayou Goula. Thus the ancient village of the Bayougoula was indicated by the modern place name, "Bayou Goula."

The Bayougoula ("River People") Indians for whom the modern village as well as the ancient site is named were one of several groups of Indians who occupied the area in the late seventeenth and early eighteenth cen-

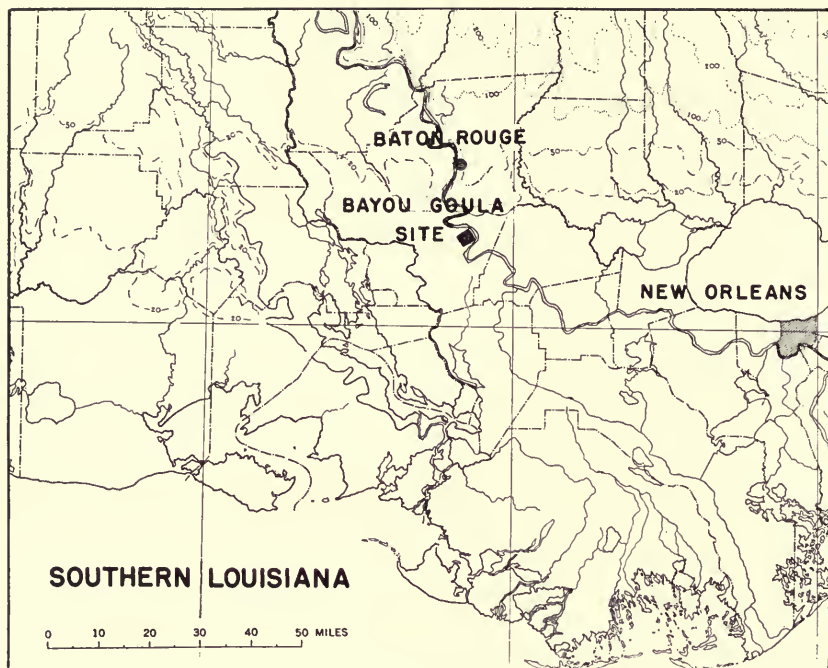


FIG. 33. Map of southern Louisiana, showing location of Bayou Goula site.

turies, when the French were exploring and colonizing Louisiana (Swanton, 1946, p. 95).

The excavation of the Bayou Goula site revealed a Plaquemine period occupancy beneath the historic occupation. The two levels of occupancy bridge the chronological gap between history and prehistory in the southern part of the lower Mississippi Valley.

LOCATION AND DESCRIPTION OF SITE

The Bayou Goula site is located in Iberville Parish, Louisiana (SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of irregular Sec. 40, R. 12 E, Twp. 10 S.), on the west bank of the Mississippi River about 25 miles downstream from Baton Rouge (fig. 33).

Before excavation the site consisted of two low, badly eroded mounds separated by a plaza about 600 feet long. The mounds and plaza were oriented along a northwest-southeast axis (fig. 34).

The mounds and plaza were situated on the level crest of an old natural levee and flood plain that rose to a height of 15 or 20 feet above the Mississippi. The river side of the levee and flood plain was somewhat steep, but the opposite or western side sloped very gradually for two or three miles.

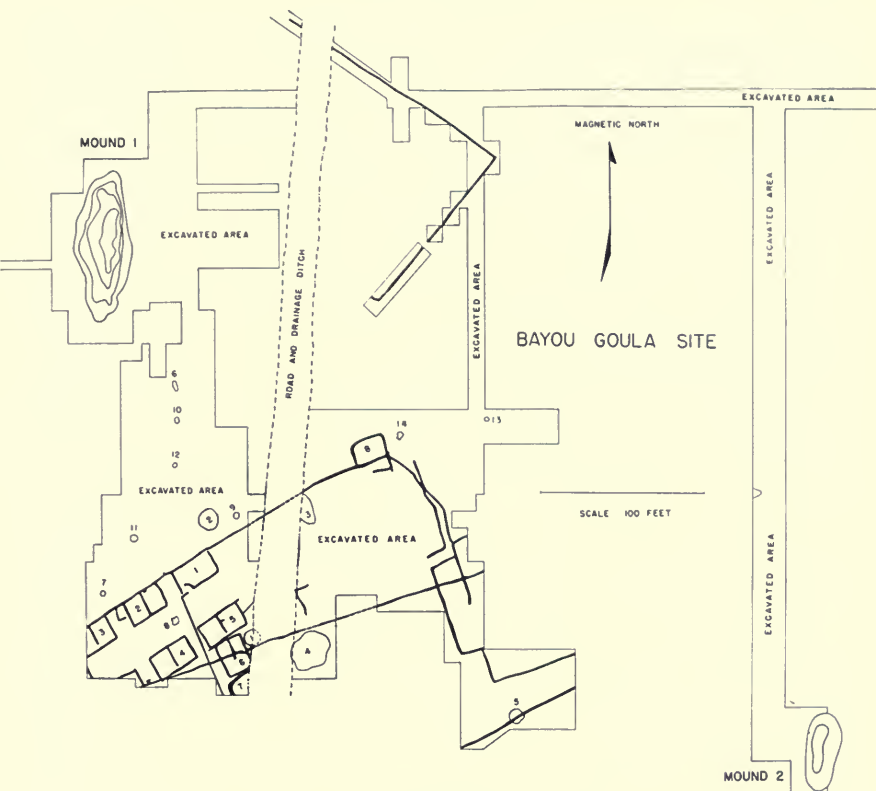


FIG. 34. Map of Bayou Goula site.

This old natural levee and flood plain was the only natural elevation in the area that would have been suitable for a village before the construction of the artificial levees.

The Mississippi River is about 500 feet east of the site, and Bayou Goula, a distributary of the Mississippi, is about a mile and a half west of it.

The land upon which the site is situated is alluvial, wet, and fertile. It had been under cultivation for many years and was planted in sugar cane at the time of excavation. Most of the site was owned by Mr. George Murrell of Bayou Goula. Smaller portions were owned by Mr. James Jarvis, Mr. Prince Jones, and Mr. Dallas Brown. All of these people graciously gave permission for the Louisiana State Archaeological Survey to excavate upon their land, with the understanding, of course, that all damage to crops would be paid for. About two acres of sugar cane were destroyed in the course of excavation.

The location and description of the site in 1699–1700 are recorded in three contemporary accounts: the journal of Iberville, the log-book of *Le Marin*, and the diary of Father du Ru or Ru Rute (Albrecht, 1941, p. 27). According to Iberville, the site was a quarter of a league from the Mississippi River in smooth, open country. The log-book of *Le Marin* recorded that the village was 60 leagues from the mouth of the Mississippi and a quarter of a league from the river. Du Ru stated that the village was 63 or 64 leagues from the mouth of the Mississippi.

According to Iberville the village consisted of two temples and 107 cabins enclosed within a palisade. The log-book of *Le Marin* states that there was a central plaza in the village and a temple fronting the plaza.

In the concluding sections of this report the ethno-historical descriptions of the village will be presented in detail and compared with the archaeological information obtained by excavation.

HISTORY OF SITE (1699–1758)

Between 1699 and 1758 the Bayou Goula site was occupied by the Bayougoula, Mugulasha (also called Quinipissa), Acolapissa, Tiou, Taensa, and Houma.

Although La Salle met no Indians in the vicinity of the Bayou Goula site in 1683, Swanton (1946, p. 95) considers it possible that the Bayougoula were the Pischenoa people encountered by Tonti in 1686 some 49 leagues above the place where the Quinipissa were then living. In 1699 the Bayougoula were seen by Iberville and his associates. Between 1699 and 1739 the Bayougoula had amalgamated with many other groups of Indians (loc. cit.).

In 1699 the Bayougoula and the Mugulasha lived together in one village, but in 1700 the Bayougoula attacked the Mugulasha, killing some and driving the others from the village. Families of Acolapissa and Tiou soon replaced the Mugulasha in the village of the Bayougoula (loc. cit.). Then in 1706 the Taensa settled in the Bayougoula village and shortly thereafter attacked the Bayougoula–Acolapissa–Tiou combination. The survivors settled near the French fort on the Mississippi below New Orleans (Swanton, 1911, p. 278) and the Taensa occupied the Bayou Goula site for an indefinite period, probably not extending beyond 1715 (op. cit., p. 270).

By 1718 the Bayou Goula site was a part of the concession of M. Paris that was commanded by M. Dubuisson, and in 1719 the Chitimacha or a part of the tribe settled in the vicinity of the concession (op. cit., pp. 339–342).

The Bayou Goula site seems to have been abandoned; in 1721 the village was vacant, for, according to Charlevoix, who passed the site at that

time, "the smallpox has destroyed a part of its inhabitants, the rest are gone away and dispersed. They have not so much as even heard any news of them for several years, and it is doubtful whether there is a single family remaining." (Op. cit., p. 278.)

By 1725, according to Swanton (1946, p. 95), the Bayougoula "had removed to a point 13 leagues above New Orleans."

In 1730 the Bayougoula village was the meeting place for the French forces marching against the Natchez. Charlevoix recorded that "on the 20th, the whole force . . . united at the Bayougoulas," (Swanton, 1911, p. 243.) However, by 1739 the Bayougoulas, Acolapissa, and Houma were fused into a single group, for according to an officer of the troops under M. de Nouaille, "the Houmas, Bayagoulas, and Colapissas are but one and the same nation in different settlements, and may be classed as Colapissas, the first two being distinct in but one respect, their chiefs being great-grandsons, the one of a Houmas, the other of a Bayougoulas, which accounts for their preserving these names, although the original tribes have long been extinct." (Op. cit., pp. 278-279.)

The ethno-historical accounts compiled by Swanton do not specifically describe any occupancy of the Bayou Goula site after 1706, yet the archaeological evidence strongly indicates that the site was occupied after 1722, because a French coin minted in 1722 at La Rochelle for circulation in the French colonies in America was found in a large refuse pit along with European trade materials and aboriginal pottery. The pit was associated with a group of dwellings. Consequently, the site was probably occupied after 1722.

The following is a brief calendar of events concerning the Bayou Goula site and/or the people who inhabited it:

- 1682: No Indians encountered in vicinity of Bayou Goula site; Mugulasha living near New Orleans.
- 1686: The Pischenoa encountered by Tonti 49 leagues above the Mugulasha may have been the Bayougoula; no Indians specifically associated with the Bayou Goula site.
- 1699: Bayougoula and Mugulasha joined in one village; Bayougoula at war with Houma.
- 1700: Bayougoula kill or drive away Mugulasha, who are replaced by Acolapissa and Tiou.
- 1706: Taensa settle in same village with Bayougoula and presently kill off Bayougoula and possibly Acolapissa and Tiou. Bayougoula survivors settle near New Orleans; Taensa remain in village.
- 1715: Bayou Goula site may have been vacated, for Taensa village is reported at Manchac.
- 1718: Bayougoula village a part of the concession of M. Paris.
- 1719: Some Chitimacha in the vicinity.
- 1721: Bayou Goula site vacant, according to Charlevoix.
- 1725: Bayougoula living 13 leagues above New Orleans; probably in process of fusion with Acolapissa and Houma.
- 1730: French forces marching against the Natchez unite at "the Bayougoulas."

1739: Bayougoula, Acolapissa, and Houma fused into one group, but group spread out over different villages.

1725–39: A fused group of Bayougoula, Acolapissa, and Houma and perhaps some others living at Bayou Goula site; archaeological evidence indicates occupancy of site after 1722.

Presumably the Bayou Goula site was occupied at intervals from at least 1699 to after 1739. There is, however, a possibility that two different sites rather than a single site are involved in this history. In the event that two different historic sites are involved, the Bayou Goula site described in this report would have been the later of the two (ca. 1722–39).

II. Excavation and Physical Structure of Bayou Goula Site

EXCAVATION OF SITE

Excavation of the Bayou Goula site was begun in April of 1940 with a crew of 30 excavators under the supervision of Dr. Edwin B. Doran. The investigations were beset by a number of unfortunate complications. First of all, the water table was so high during the summer that it flooded the excavations. Then, when the water table was sufficiently low to permit excavations under ideal conditions, many of the workers were removed by quota reductions. Nonetheless, excavations continued with reduced personnel; then it was found that the most interesting part of the site was beneath a house, a barn, two outhouses and a truck garden. Finally, in November, 1940, the investigation of the site was temporarily suspended for lack of labor.

In the latter part of February, 1941, excavations were resumed with 30 men under the direction of Dr. Carlyle S. Smith. Once more the digging was hindered by high water, but the use of earthen bulkheads in the trenches and continuous bailing allowed the examination of significant areas to a depth of four or five feet. Excavations were continued until July, 1941, at which time federal aid was withdrawn from the project.

In spite of numerous hindrances and complications, almost all of Mound 1 was completely excavated, a profile of Mound 2 was obtained, a number of houses and pits were excavated, several stratigraphic trenches were dug, and about 1,500 running feet of exploratory trenches 10 feet wide were completed.

Nevertheless much of the Bayou Goula site remains unexcavated, and this report leaves unanswered some problems that might have been solved with the aid of data from more extensive excavations.

The method of excavation of the Bayou Goula site was as follows: First, the site was divided into 10-foot squares with the aid of a transit. On Mound 1 this grid system was reduced to 5-foot squares. Reference stakes were placed at the corners of each square, and levels were taken on the surface of the ground at each stake. This grid system encompassed an area of about 200,000 square feet. A contour map of the site was prepared with

the aid of the grid system and levels. In addition to this, ground plans and profiles of all features of the site were made as the excavation progressed.

All cultural materials were collected in terms of grid-square and level or by association with some structural or geological feature. Structural features consisted of house and palisade trenches, refuse pits, fire pits, burial pits, and mounds or levels of mounds. Geological features consisted of old humus lines and strata of silt.



FIG. 35. Small jar of Addis Plain.

STRUCTURAL AND GEOLOGICAL FEATURES

About 4 or 5 feet beneath the present surface of the Bayou Goula site there was an old humus layer covered by a thin midden deposit. Above this old humus layer was an intermediate zone from 3 to 4 feet thick, consisting of strata of waterlaid silts. The top 9 to 12 inches of the site had been plowed, and although plowing had disturbed the associations of the artifacts on the top level, it had not destroyed the utility or validity of the top level as a provenience of stratigraphic importance.

In the following paragraphs I shall describe briefly the old humus level, the intermediate silt zone, and the plowed zone, and list the cultural materials associated with each.

OLD HUMUS LEVEL

The old humus level, 4 or 5 feet beneath the present surface of the ground, was from 3 to 6 inches thick, and included a thin midden deposit. It lay on top of a bed of silt of undetermined thickness. Because of the high water table it was not always possible to reach this level. Moreover, it

was not discovered until excavations had been carried on for some time. Consequently, the collections from this level were not extensive.

Mounds 1 and 2 were built on the old humus level and were a part of the Plaquemine period occupancy represented there. Beneath Mound 1 the old humus level had been compressed by the weight of the overlying earth. When this overburden was removed by excavation, the old humus level erupted through profiles and floors like a series of small volcanoes.

The following artifacts or other cultural manifestations of Indian occupancy were found. Occasional patches of charcoal, burned earth, and animal bones were encountered. One shallow depression, about 3 feet in diameter and 6 inches deep, was lined with canes, grass, and leaves. Near an area of charcoal and burned earth, probably a fireplace, there was a whole vessel, 12 cm. high, of the type Addis Plain (fig. 35). At one point on the old humus level there was found a basketry impression indicative of the technique of simple plaiting, but not of the form of the basket or mat. At another point there was a small deposit of fragmentary corncobs that had been burned. These cobs were of small diameter, with eight rows of kernels.

The following pottery types were associated with the old humus level outside of the mounds:

Pottery types	Number of sherds
Addis Plain	1656
Pontchartrain Check Stamped	70
Hardy Incised	34
Manchac Incised	18
Plaquemine Brushed	4
Neeley's Ferry Plain	7
Medora Incised	4
Dupree Incised	14
Harrison Bayou Incised	1
Coles Creek Plain	13
Coles Creek Incised	10
French Fork Incised (crude variant)	15
Rhinehardt Punctated	4
Beldeau Incised	2
Larto Red Filmed	1
Chevalier Stamped	1

INTERMEDIATE ZONE

Above the old humus level and beneath the top level there was an intermediate zone of waterlaid silts that seemed to be relatively sterile but occasionally contained sherds. It was not determined whether these sherds were redeposited by water action, were in pits unrecognized by the excavators, or were sparse occupational deposits. Since a number of pits were intrusive into the intermediate zone from the top level and since some digging with

the shovel under water made excavation difficult it is possible that the cultural content of the intermediate zone came from unrecognized pits. Probably some redeposition of sherds from the old humus level is also involved. The nature of the waterlaid strata of silt and the relative paucity of cultural materials suggest that human occupancy of the intermediate zone was unlikely.

The following pottery types were found in the intermediate zone, which was from 3 to 4 feet thick:

Pottery types	Number of sherds
Addis Plain.....	910
Neeley's Ferry Plain.....	4
Medora Incised.....	3
Manchac Incised.....	20
Pontchartrain Check Stamped.....	11
French Fork Incised (crude variant).....	5
Hardy Incised.....	19
Plaquemine Brushed.....	1
Chevalier Stamped.....	1
Dupree Incised.....	11
Harrison Bayou Incised.....	4
Fatherland Plain.....	9
Fatherland Incised.....	6
Bayou Goula Incised.....	4
Evangeline Interior Incised.....	2

Except for pottery sherds, artifacts were lacking in the intermediate zone.

TOP LEVEL

From the surface to a depth of one foot we found pottery sherds in abundance as well as some trade objects. Generally the contents of the top level had been disturbed by plowing. Excavation revealed that the first plowing had been in a north-south alignment and subsequent plowing had been in an east-west line. The plowing, however, had only disturbed the spatial distribution of artifacts; it did not injure the top layer as a stratigraphic unit in relation to the intermediate zone and the old humus level.

The top level was excavated more extensively than either the intermediate zone or the old humus level, because the major concern was with the historic occupancy of the site and because the water table was so high during most of the year that it favored excavation in the top level.

Features of this level, such as houses and palisades, have been described in a following section. The intent, here, is to present the top level as a stratigraphic unit with reference to the intermediate zone of silt and the old humus level.

The following pottery types were found in the top level:

Pottery types	Number of sherds
Fatherland Plain	1824
Fatherland Incised	711
Bayou Goula Incised	184
Natchez Incised	14
Pocahontas Punctated	24
Neeley's Ferry Plain	60
Addis Plain	5911
Manchac Incised	130
Pontchartrain Check Stamped	22
Hardy Incised	126
Plaquemine Brushed	10
French Fork Incised (crude variant)	3
Harrison Bayou Incised	11
Dupree Incised	23
Medora Incised	6
Lulu Linear Punctated	3
Beldeau Incised	3
Rhinehardt Punctated	8

An unplowed portion of the top level adjoining Mound 1 contained pottery and trade objects. The following pottery types were found in the undisturbed area:

Pottery types	Number of sherds
Fatherland Plain	24
Fatherland Incised	14
Bayou Goula Incised	8
Pocahontas Punctated	4
Neeley's Ferry Plain	3
Addis Plain	215
Manchac Incised	12
Pontchartrain Check Stamped	1
Hardy Incised	12
Harrison Bayou Incised	1
Unclassified	20

DWELLINGS

Eight houses were excavated in the village area in the southwestern quadrant of the Bayou Goula site (fig. 34). These houses were manifested by wall trenches outlining rectangles about 25 feet long and about 17 feet wide. The wall trenches were from 9 to 12 inches wide and about 12 inches deep. Four of the houses were divided into two square rooms of equal size by an additional wall trench that formed a partition across the width of the house (fig. 34).

Few post molds were found in the wall trenches. Posts, if used, must have disappeared without leaving any trace. However, it is likely that canes were used more than posts in the construction of these houses. Probably, closely spaced canes were set in trenches. The French explorers who visited

the Bayougoula village in 1699–1700 noted that the houses and palisades were made of cane, and although these houses may have been occupied ca. 1722 and therefore belong to a period later than the first visit of the French to the Bayougoula village, it seems most likely that cane was used in the construction of the houses.

Following are some brief descriptions of specific houses and a listing of the associated cultural materials.

House no. 1 was rectangular and about 27 feet long and 16 feet wide (fig. 34). The wall trench was about 12 inches wide and from 6 to 9 inches deep. This house had one wall in common with houses 2 and 3. The floor level probably had been above the plow-line and therefore had been destroyed. The following cultural materials were found in the wall trenches:

Pottery types	Number of sherds
Fatherland Incised.....	3
Fatherland Plain.....	7
Neeley's Ferry Plain.....	1
Addis Plain.....	7

House no. 2 was rectangular and about 25 feet long and 16 feet wide. It was divided into two rooms of equal size (fig. 34) by a partition wall trench running the width of the house. At the southwest end of the house was a shed or additional room 7.5 feet long and 6 feet wide. This house and its addition shared a wall with houses 1 and 3. The wall trenches of house no. 2 were from 12 to 18 inches wide and from 9 to 12 inches deep. The floor had been destroyed by plowing. The following cultural materials were found in the wall trenches:

Pottery types	Number of sherds
Fatherland Incised.....	1
Fatherland Plain.....	3
Neeley's Ferry Plain.....	2
Addis Plain.....	3

House no. 3 was partly beneath a garden and therefore was not completely excavated. However, enough of the house was examined to see that it was rectangular, about 16.5 feet wide and probably 25 feet long (fig. 34). It was separated into two rooms, probably of equal size, by a partition wall trench running the width of the house. One wall was shared with houses 1 and 2. The wall trenches were 12 inches wide and from 6 to 9 inches deep. The floor had been destroyed by plowing. Pottery was found in the wall trenches, but it was lost in transit between field and laboratory.

Houses 1 to 3 and the spaces between the houses (fig. 34) may have formed a single dwelling unit of some kind. Such a unit is not even hinted

at in the ethno-historical accounts of the tribes in the lower Mississippi Valley and it seems improbable that such existed, but the possibility should be noted. It seems more likely that houses 1 to 3 were built against the interior side of a palisade of canes.

House no. 4 was rectangular, about 27.5 feet long and 16 feet wide. It was divided into two rooms of equal size by a partition wall trench running the width of the house (fig. 34). The wall trenches were from 12 to 18 inches wide and about 12 inches deep. The floor had been destroyed by plowing. Cultural refuse from the wall trenches was as follows:

Pottery types	Number of sherds
Fatherland Plain.....	1
Addis Plain.....	2
Trade objects	Number of fragments
European earthenware with green glaze.....	1

House no. 5 was rectangular, about 28 feet long and 15 feet wide. It was divided into two rooms of equal size by a partition wall trench running almost the width of the house (fig. 34). The wall trenches were about 12 inches wide and about 10 inches deep. The floor had been destroyed by plowing, but the following cultural material was collected from the fill of the wall trenches:

Pottery types	Number of sherds
Fatherland Incised.....	3
Fatherland Plain.....	3
Necley's Ferry Plain.....	2
Addis Plain.....	3

House no. 6 was a rectangular structure 23 feet long and 17 feet wide (fig. 34). The wall trenches were from 12 to 18 inches wide and 10 inches deep. The walls of this house had been excavated through an earlier palisade wall (fig. 34). Cultural materials from the fill of the wall trenches included the following:

Pottery types	Number of sherds
Fatherland Incised.....	6
Fatherland Plain.....	24
Necley's Ferry Plain.....	3
Addis Plain.....	21
Dupree Incised.....	1

House no. 7 had been partly destroyed by a modern drainage ditch and road. The remaining portion (fig. 34) suggested a rectangular structure.

The wall trenches were from 12 to 24 inches wide and from 8 to 10 inches deep. The floor had been destroyed by plowing. Cultural materials included in the fill of the wall trenches were the following:

Pottery types	Number of sherds
Fatherland Incised.....	1
Fatherland Plain	5
Neeley's Ferry Plain.....	5
Addis Plain.....	15

House no. 8 was rectangular, about 22 feet long and 15 feet wide (fig. 34). One wall seems to have been formed by a palisade. A small rectangular room on the side of the house was 12.5 feet long and about 8 feet wide. The wall trenches manifesting this structure were 12 inches wide and from 10 to 12 inches deep. The floor had been destroyed by plowing.

PALISADES

The records of Iberville state that in 1699-1700 the village of the Bayougoulas was surrounded by a palisade of canes, and although the excavated portion of the Bayou Goula village site is believed to have been occupied at a time 25 years later, it seems reasonable to expect that palisades of cane were still in use. In any event, excavation of the site revealed long wall trenches that were probably the trenches employed in the construction of a palisade (fig. 34).

In one instance several post molds were found in a palisade trench. It is possible, but unlikely, that post molds were missed by the excavators in most of the palisade trenches.

The following pottery types were included in the fill of the palisade trenches:

Pottery types	Number of sherds
Fatherland Plain.....	10
Fatherland Incised.....	7
Bayou Goula Incised.....	3
Neeley's Ferry Plain.....	1
Addis Plain.....	20
Manchac Incised.....	2

REFUSE PITS

Numerous refuse pits were excavated at the site. With the exception of a few pits found in the old humus level, all of the pits were intrusive from the top level or from within a few inches of the top level. In the following section these pits and their contents are listed in terms of two groups. The first grouping contains pits that seem to be associated with the historic

occupancy of the site, and the second grouping contains pits that could be, but need not be, associated with the prehistoric occupancy.

Historic Pits

Refuse pit no. 1 (fig. 34): The undisturbed half of a circular pit about 10 feet in diameter and 2 feet deep. The pit contained dark gray silt, charcoal, and the following cultural detritus:

Pottery types	Number of sherds
Fatherland Incised.....	63
Fatherland Plain.....	216
Addis Plain.....	196
Neeley's Ferry Plain.....	110
Manchac Incised.....	4
Hardy Incised.....	5
Pocahontas Punctated.....	6
Harrison Bayou Incised.....	1
Other artifacts	Number of fragments
Clay pipe bowls.....	6
Trade objects	Number of objects
Polychrome and spotted brown crockery sherds..	5
Colorless decahedral bead.....	2
Brass tubular bead.....	1
Elongate spheroidal white bead.....	1
Fragment of rum bottle.....	3
French coin dated 1722.....	1

Refuse pit no. 2 (fig. 34): A circular pit 12 feet in diameter and 3 feet deep, filled with black silt, charcoal, animal bones, and the following cultural materials:

Pottery types	Number of sherds
Fatherland Incised.....	1
Fatherland Plain.....	24
Addis Plain.....	17
Coles Creek Incised.....	1
Neeley's Ferry Plain.....	1
Hardy Incised.....	2
Trade objects	Number of objects
Rum bottle fragments.....	4
Mottled blue Staffordshire-like design on white-buff paste.....	1

Refuse pit no. 3 (fig. 34): A large irregular pit partly destroyed by the cutting of the road and adjoining drainage pit. The remaining and undisturbed portion of the pit was 14 feet long, 6 feet wide, and 3 feet deep.

This pit contained animal bones, some charcoal, and the following cultural materials:

Pottery types	Number of sherds
Fatherland Plain	31
Fatherland Incised	14
Bayou Goula Incised	5
Natchez Incised	1
Neeley's Ferry Plain	37
Addis Plain	171
Plaquemine Brushed	6
Manchac Incised	4
Harrison Bayou Incised	1
Trade objects	Number of objects
Brass sword guard	1

Refuse pit no. 4 (fig. 34): A large ovoid pit, 20 feet in diameter and 3 feet deep, containing a burned area, charcoal, and scattered post molds in the bottom. A two-inch layer of silt covered the top of the pit. This pit may have been part of a semi-subterranean house. The following cultural refuse was excavated:

Pottery types	Number of sherds
Fatherland Plain	2
Bayou Goula Incised	1
Neeley's Ferry Plain	1
Addis Plain	256
Manchac Incised	6
Hardy Incised	12
Dupree Incised	3
Pontchartrain Check Stamped	4
Lulu Linear Punctated	7
French Fork Incised (crude variant)	5

Refuse pit no. 5 (fig. 34): This ovoid pit was 8 feet in diameter and 2 feet deep. It contained animal bones, charcoal flecks, fragments of iron, and the following artifacts and trade objects:

Pottery types	Number of sherds
Fatherland Plain	38
Fatherland Incised	12
Bayou Goula Incised	12
Neeley's Ferry Plain	21
Pocahontas Punctated	1
Addis Plain	20
Plaquemine Brushed	1
Hardy Incised	1
Trade objects	Number of objects
Wrought iron spikes	12
Fragment of white clay pipe-stem	1
Gun flints	3
Lead-lined fragment of clay pipe-stem	1

Refuse pit no. 6 (fig. 34): An elongate, oval pit about 5 feet long, 2 feet wide, and 1 foot deep. It contained flecks of charcoal, animal bone, and the following cultural material:

Pottery types	Number of sherds
Fatherland Plain	6
Fatherland Incised	2
Bayou Goula Incised	3
Addis Plain	8
Other artifacts	Number of artifacts
Gar fish scale projectile point	1
Crude figurine of fired clay	1

Refuse pit no. 7 (fig. 34): A circular pit with a diameter of 3 feet and a depth of 1 foot. It contained the following material:

Pottery types	Number of sherds
Fatherland Plain	10
Fatherland Incised	3
Bayou Goula Incised	2
Natchez Incised	2
Addis Plain	12
Plaquemine Brushed	1
Manchac Incised	3

Refuse pit no. 8 (fig. 34): An irregularly shaped pit about 5 feet long and nearly 2 feet deep. It contained animal bone, flecks of charcoal, and the following pottery:

Pottery types	Number of sherds
Fatherland Plain	2
Addis Plain	16

Refuse pit no. 9 (fig. 34): A circular pit 4 feet in diameter and 1 foot deep. It contained animal bone, charcoal flecks, and the following cultural remains:

Pottery types	Number of sherds
Fatherland Plain	4
Addis Plain	8
Vegetal remains	
Charred locust bean	1

Refuse pit no. 10 (fig. 34): An irregularly shaped pit about 3 feet in diameter and 1 foot deep. It contained animal bones, charcoal flecks, and the following pottery types:

Pottery types	Number of sherds
Fatherland Incised.....	2
Fatherland Plain.....	6
Addis Plain.....	10
Manchac Incised.....	1

Pits Lacking Historic Pottery Types and Trade Objects

Pit no. 11 (fig. 34) was about 4 feet in diameter and 1 foot deep. It contained three sherds of Addis Plain and one sherd of Dupree Incised.

Pit no. 12 (fig. 34) was about $2\frac{1}{2}$ feet in diameter and 6 inches deep. It contained fire-hardened and fire-colored earth, 42 sherds of Addis Plain, one sherd of Pontchartrain Check Stamped, and one sherd of French Fork Incised.

Pit no. 13 (fig. 34) was 2 feet in diameter and 8 inches deep. It contained charcoal flecks, two sherds of Addis Plain, one sherd of Dupree Incised, and one sherd of Australia Interior Incised.

Pit no. 14 (fig. 34) was 5 feet in diameter and 1 foot deep. It contained animal bones, charcoal flecks, eleven sherds of Addis Plain, one sherd of Hardy Incised, and one sherd of Plaquemine Brushed.

MOUND 1

Mound 1 (fig. 34) was excavated by trenching and peeling techniques. Profiles running the entire width of the structure were cut at five-foot intervals along an east-west axis. Excavation revealed that the mound was a composite structure. Here it will be described in terms of its component parts in the order of their construction from earliest to latest.

MOUND PHASE NO. 1

This stage of mound construction (fig. 36) consisted of a low pyramidal mound with a flat top. This mound was 70 feet on each side and 3 feet high. It was built on top of the old humus level which everywhere underlay the site at depths of four or five feet. The mound was made of gray, silty clay. Included in the fill was a cypress log 6 inches in diameter and 46 inches long, with a carved zigzag design on one side, and the following pottery types:

Pottery types	Number of sherds
Addis Plain.....	466
Hardy Incised.....	12
Medora Incised.....	3
Pontchartrain Check Stamped.....	5
Dupree Incised.....	13
Rhinchardt Punctated.....	7
Manchac Incised.....	2
French Fork Incised (crude variant).....	6
Coles Creek Incised.....	6

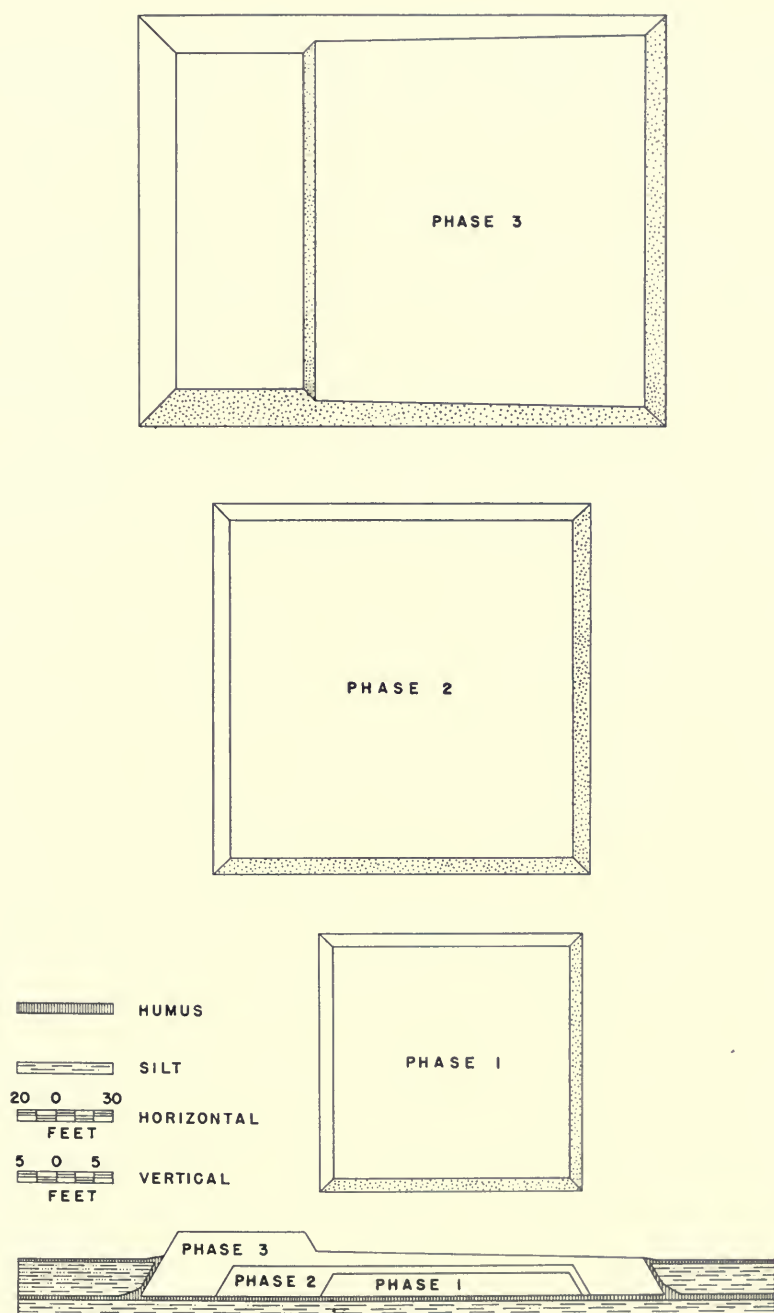


FIG. 36. Diagram of the construction stages of Mound 1.

On the summit of mound phase no. 1 there were areas of burned earth and scattered post molds indicative of occupancy. Probably there was some kind of ceremonial structure on the summit.

MOUND PHASE NO. 2

This stage of mound construction (fig. 36) consisted of an enlargement of the primary mound. A fill of gray silty clay mixed with brownish silt was dumped to a depth of 6 inches on the mound and a depth of $3\frac{1}{2}$ feet beyond the mound to the south and west. With the addition of the secondary mantle the mound still was pyramidal and square with a flat summit, but it now measured 100 feet on each side and stood $3\frac{1}{2}$ feet above the old humus level. On the summit were deposits of ash, patches of burned earth, five boatstones, and scattered post molds, including a group suggestive of the corner of a rectangle, probably evidence of ceremonial usage of the mound summit. The fill of mound phase no. 2 contained the following cultural debris:

Pottery types	Number of sherds
Addis Plain.....	248
Hardy Incised.....	19
Medora Incised.....	15
Coles Creek Incised.....	10
Pontchartrain Check Stamped.....	3
Beldeau Incised.....	4
Harrison Bayou Incised.....	2
French Fork Incised (crude variant).....	1
Dupree Incised.....	1

MOUND PHASE NO. 3

This mound stage (fig. 36) consisted of a rectangular pyramidal mound with a flat summit on top of a square platform built over the previous two phases of mound construction. The mound platform was 140 feet long (N-S axis) and 110 feet wide (E-W axis) at its base and 5 or 6 feet high. The pyramidal mound on the south end of the platform was 40 feet wide (N-S axis), about 110 feet long (E-W axis), and about 3 feet high. The height of the total structure was now at least 8 and perhaps 9 feet. Both the pyramidal mound and the platform on which it stood were made of gray silty clay and were built at the same time. The tertiary phase of mound construction completely covered the preceding two stages of mound building and where it extended beyond them it rested on the old humus level.

The summit of the pyramidal mound or the top of the platform mound or both may have had ceremonial structures upon them. However, no factual evidence was obtained because erosion and plowing had destroyed the original surfaces of these features.

The following cultural materials were included in the fill of mound phase no. 3.

Pottery types	Number of sherds
Addis Plain.....	863
Hardy Incised.....	80
Pontchartrain Check Stamped.....	14
Dupree Incised.....	17
Manchac Incised.....	12
Medora Incised.....	2
Australia Interior Incised.....	1
Harrison Bayou Incised.....	2
Coles Creek Incised.....	5
Rhinehardt Punctated.....	5
Beldeau Incised.....	1

Additional cultural materials associated with this phase of mound construction were obtained from the surfaces of the tertiary mound slopes where they had been sealed in place by the silting of the site. The cultural materials from the slopes (fig. 36) were the following:

Pottery types	Number of sherds
Addis Plain.....	2725
Hardy Incised.....	780
Manchac Incised.....	33
Dupree Incised.....	15
Plaquemine Brushed.....	4
Pontchartrain Check Stamped.....	31
Lulu Linear Punctated.....	2
Australia Interior Incised.....	1
Harrison Bayou Incised.....	1
Medora Incised.....	5
Coles Creek Incised.....	1
Larto Red Filmed.....	1
Rhinehardt Punctated.....	6
French Fork Incised (crude variant).....	8
Beldeau Incised.....	1

SILTING OF THE SITE

Some time subsequent to the occupation of the old humus level and the stages of the construction of mound 1 (also mound 2, to be described later) and prior to the historic occupation of the site there was a thick and presumably rapid deposition of silt over the entire site. This layer of water-laid silt covered the site to a depth of 4 or 5 feet. It buried the lower portions of mound 1 and mound 2 and completely buried the old humus level. This silt layer and its relation to mound 1 is shown in figure 36. After the silting of the site, mound 1, as it existed above the silt which was the new ground level, probably was 3 or 4 feet high, 100 feet long, and 40 feet wide at the base. It was at this stage or later in the history of mound 1 that a number of burials were placed in pits dug from the mound surface or in

some cases from the silt surface on the flanks of the mound. At the time of excavation the mound was an elongated irregular form about 85 feet long, 35 feet wide, and 3 feet high. The shape obviously had been modified to an unknown degree by plowing.

BURIALS IN MOUND 1

Eleven burials were found in mound 1. All of these burials were intrusive and were made subsequent to the deposition of the silt layer. This is demonstrated by the cultural content of the grave-pit fill as well as by the fact that at least one grave pit was dug through the silt layer where it overlapped the mound at its southern periphery.

Burial no. 1. There were the remains of two individuals arranged in two bundles of poorly preserved and crushed bones in a shallow grave pit intrusive from the surface. Associated with this burial were ten brass or copper cone-shaped tinklers and several white elongate spheroidal trade beads.

Burial no. 2. Two bundles of longbones and skull fragments representing two individuals comprised this burial. The preservation of the bones was so poor and the crushing so bad that age and sex could not be determined nor could the bones be saved. Associated with this burial were 19 small blue oblate spheroidal trade beads, 2 small tubular brass or copper beads, and 5 sherds of the type Fatherland Incised.

Burial no. 3. Just beneath the surface of the tertiary mound was an intrusive pit containing a bundle burial that had been disturbed by the subsequent interment in the same pit of an extended burial within a coffin which was outlined by iron nails. Both burials were so badly crushed and so poorly preserved that there were few data to be obtained. Scattered about this pit were a number of European and native artifacts. There were four fish-shaped chipped flint projectile points, one long narrow triangular stemmed projectile point, two triangular stemmed points, and one triangular stemmed point with eared shoulders.

There were two other artifacts of native manufacture, made of quartz crystals. One was rather indefinite in outline; the other was rather long, hexagonal in section, and rounded and grooved at the top.

Pottery in the grave-pit fill consisted of 10 sherds of Addis Plain, 11 sherds of Fatherland Plain, 15 sherds of Neeley's Ferry Plain, and 9 sherds of a type resembling Crockett Curvilinear Incised.

European trade objects present were a disk-shaped lead object that looked like a fabric seal, a small brass dinner bell with a perforated bar handle, a hollow brass button, and a number of trade beads. Twenty-five of the elongate spheroidal beads were white, 13 were blue, and 16 were

white with blue wavy bars running parallel to their long axes. Sixty of the spheroidal beads were white, 21 were blue, and 3 were white with vertical inlaid bars of red and blue. There were also 3 white beads of joined oblate spheroidal form and 30 small white seed beads.

Burial no. 4. This burial consisted of a torso and skull and a bundle burial in a grave pit which was intrusive from the surface of the tertiary mantle of mound 1. Both skeletons were so crushed and badly preserved that the age and sex of the two individuals could not be determined. Fragments of wood associated with the torso are suggestive of a coffin. In this grave pit and associated with the two skeletons were four fish-shaped flint projectile points, one narrow triangular stemmed projectile point, and a triangular stemmed projectile point with eared shoulders. The only European trade artifacts in the grave pit were two brass buttons.

Burial no. 5. Fragmentary longbones and a skull arranged in a bundle were in a shallow pit intrusive from the surface. The fill of this pit and the area immediately adjoining it contained 12 sherds of Addis Plain, 1 sherd of Plaquemine Brushed, 39 sherds of Fatherland Plain, 6 sherds of Fatherland Incised, 1 sherd of Natchez Incised, and 10 sherds of Neeley's Ferry Plain.

Burial no. 6. This burial consisted of a single, fragmentary skull in a pit intrusive into the secondary mound from the surface. Also in or near the pit were a fish-shaped chipped flint projectile point, 31 sherds of Fatherland Plain, 3 sherds of Fatherland Incised, 20 sherds of Addis Plain, and 10 sherds of Neeley's Ferry Plain.

Burial no. 7. Fragmentary longbones and pieces of four or more skulls and a child mandible were arranged in a bundle within a shallow pit intrusive from the surface of the mound to the primary structure. Associated with this burial were several artifacts of native manufacture. One of these was a fish-shaped chipped flint projectile point. There were also 13 sherds of Fatherland Plain, 7 sherds of Fatherland Incised, and 3 sherds of Addis Plain.

Burial no. 8. In a pit intrusive from the mound surface into the primary structure was a flexed skeleton in a very poor state of preservation. The skeleton lay back down, hands at side, and legs flexed to the right. There was no trace of the hand or foot bones. No artifacts were in the pit.

Burial no. 9. Also in a pit intrusive into the primary mound was a bundle burial presumably containing the bones of one person. Like all other skeletal remains in mound 1, the bones were fragmentary and poorly preserved. In or near the grave were 2 fish-shaped chipped flint projectile points, 15 sherds of Fatherland Plain, 2 sherds of Fatherland Incised, and 2 sherds of Neeley's Ferry Plain.

Burial no. 10. A small pit intrusive into the tertiary mantle of mound 1 contained a fragmentary skull and nothing else.

Burial no. 11. A similar small pit intrusive into the tertiary mantle of mound 1 also contained an isolated skull in a very fragmentary condition—bone mostly powder and only caps of teeth remaining. In or near this pit were the following: part of a bear's jaw, a spheroidal bead with blue spirals on a white background, 2 sherds of Addis Plain, 3 sherds of Fatherland Incised, 6 sherds of Fatherland Plain, 6 fish-shaped projectile points of chipped flint and 10 stemmed triangular projectile points of chipped flint.

MOUND 2

Although mound 2 was not excavated, a test trench revealed a structure similar to that of mound 1. The first phase of the construction consisted of a flat-topped pyramidal mound about 70 feet on each side at the base and 4 feet high. This mound was built on the old humus level. The second phase of the construction also consisted of a flat-topped pyramidal mound built over the first. It too rested on the old humus level except where it covered the primary mound. At this stage the total structure was 110 feet on each side at the base and 6 feet high. The third phase consisted of a pyramidal mound built over the preceding two mantles and also resting on the old humus level where it overlapped the two preceding mantles. The tertiary mantle produced a structure about 130 feet on each side at the base and at least 9 feet high. Presumably the top of this mantle was flat and square, but erosion and plowing had destroyed its form.

Like mound 1 the lower part of mound 2 was buried by waterlaid silt to a depth of 5 feet, prior to the historic occupancy of the site.

A sampling of the cultural content of mound 2 taken from the test trench and saved without reference to phase of mound construction consists of the following pottery types:

Pottery types	Number of sherds
Addis Plain.....	136
Pontchartrain Check Stamped.....	4
Dupree Incised.....	2
Hardy Incised.....	7
Manchac Incised.....	4

III. Aboriginal Artifacts

POTTERY

More than 19,000 pottery sherds were collected from the Bayou Goula site. These sherds were classified according to the system that has been in general use in the eastern United States since 1938. In this paper the pottery types are considered to be synthetic assemblages of groups of overlapping traits that were abstracted without statistical objectification from sherds and whole vessels.

To be valid in this context, the pottery type must have utility in demonstrating culture change in space or time or both. And such a pottery type is or becomes an historical reality by virtue of its use by archaeologists, if for no other reason.

The following pottery types were represented in the collections from the Bayou Goula site: Coles Creek Incised, Rhinehardt Punctated, Beldeau Incised, a crude variant of French Fork Incised, Pontchartrain Check Stamped, Larto Red Filmed, Chevalier Stamped, Coles Creek Plain, Plaquemine Brushed, Addis Plain, Hardy Incised, Medora Incised, Manchac Incised, Dupree Incised, Harrison Bayou Incised, Evangeline Interior Incised, Lulu Linear Punctated, Pocahontas Punctated, Neeley's Ferry Plain, Fatherland Incised, Fatherland Plain, Bayou Goula Incised, and Natchez Incised.

The Coles Creek period pottery types—Coles Creek Plain, Coles Creek Incised, Beldeau Incised, Rhinehardt Punctated, Pontchartrain Check Stamped, Larto Red Filmed, Chevalier Stamped, and French Fork Incised—have been described by Ford and Willey (1939) and Ford (1951, pp. 48–90); these types will not be described in this report. It should be noted, however, that the examples of French Fork Incised found at the Bayou Goula site were of a “broken down” or crude variety of French Fork Incised and might justifiably be classified as a separate type (fig. 37).

The Plaquemine period pottery types found at the Bayou Goula site were Hardy Incised, Addis Plain, Manchac Incised, Medora Incised, Plaquemine Brushed, Dupree Incised, Harrison Bayou Incised, Lulu Linear Punctated, Evangeline Interior Incised, and Australia Interior Incised. These types also have been described previously (Quimby, 1951, pp. 107–124).

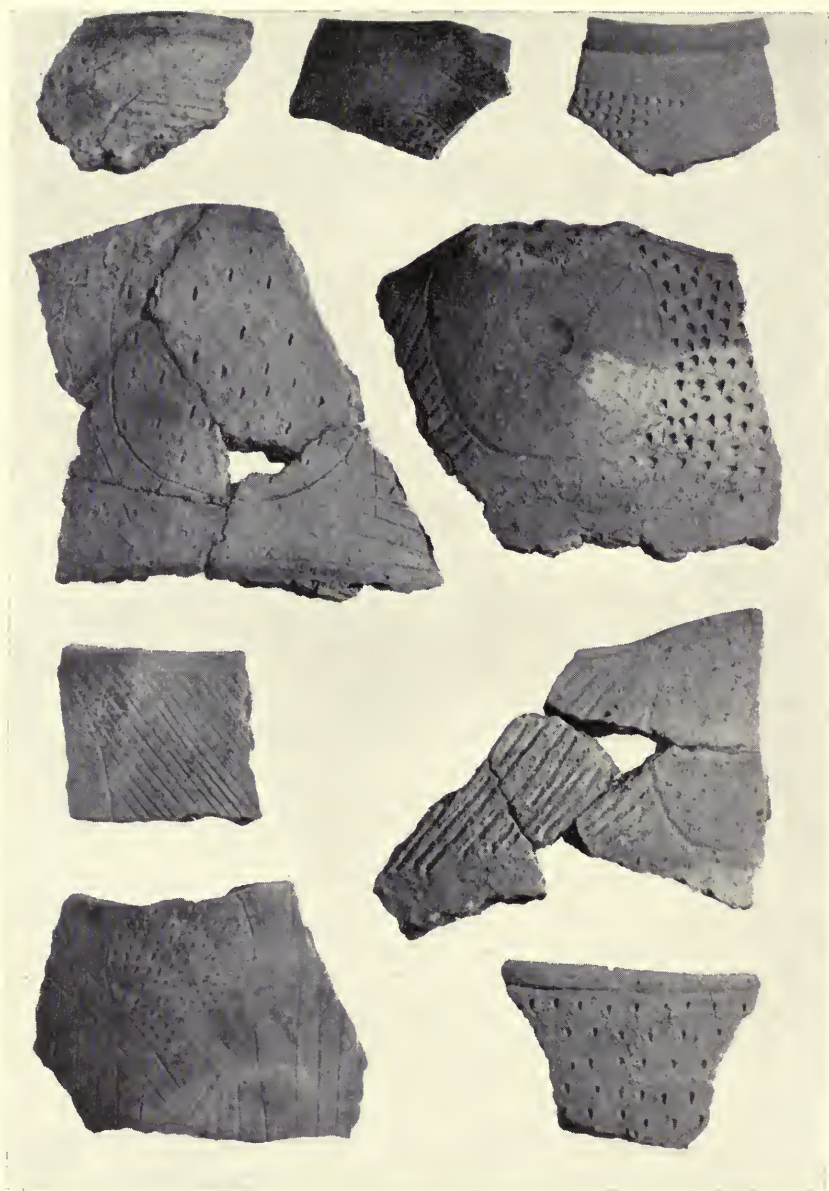


FIG. 37. Sherds of a type resembling French Fork Incised.

The Natchezan types, Fatherland Plain, Fatherland Incised, Bayou Goula Incised, and Natchez Incised, are described in the following pages.

FATHERLAND INCISED

(Figure 38)

Paste

Method of Manufacture: Coiling, coil fractures occur occasionally.

Tempering: Very fine particles of grit, clay, shell, and unidentified organic matter.

Texture: Fine, granular, and compact.

Hardness: Exterior surface hardness ranges from 2.5 to 3.

Color: Ranges from buff to dark gray.

Surface

Modifications: Vessel surfaces are very smooth and sometimes polished. In some instances a red film appears on the interior surface or the exterior surface or both.

Decoration

Technique: Incising of fine lines with a pointed instrument, or in a few instances with a comb-like tool capable of producing multiple incised parallel lines.

Design: Rather carefully executed curvilinear designs consisting of meanders, scrolls, interlocking scrolls, or scrolls with volutes produced by parallel incised lines, usually in groups of three. Frequently, and especially on bowls, there are from one to four incised, parallel lines encircling the rim. To these lines are appended incised triangles separating the upper portions of scrolls. These triangles are line-filled in some instances.

Position: Usually the design covers the vessel exterior from just beneath the lip to just above the base. This is particularly true of bowl forms.

Form

Body: Shallow bowls with rounded bottoms were the most frequent forms, but there were also several varieties of jars with flat bases and bottle-like jars with rounded or flattened bases.

Lip: Rounded or flattened with rounded corners, rarely beaded.

Rim: Incurving rims are usually found on bowls, and straight or slightly flaring rims are found on jars, but there are instances of straight, vertical rims on jars and on bowls.

Base: Rounded on most bowls, flat on jars. Platform bases occur on jars and bowls in some instances.

At the site only bowls with rounded bottoms were found, but at the Fatherland Plantation site near Natchez, Mississippi, jar forms, platform bases, and other elaborations of form were present.

Size: Vessel thicknesses are uniform and range from 0.4 to 0.9 cm.; the average is 0.6 or 0.7 cm. Bowls averaged 18 to 22 cm. in diameter and 8 to 12 cm. in height, jars 13 cm. in diameter and 12 cm. in height.

Usual Range of Type

East central Louisiana along the Mississippi River and northward to Adams County, Mississippi, and adjacent areas.

Chronological Position of Type in Range

Natchezan period and up to early eighteenth century.

Probable Relationships of Type

This type is closely related to Fatherland Plain, Bayou Goula Incised, Natchez Incised, Chickachae Combed, and Anna Scroll Incised.

References

- J. A. FORD, 1936, fig. 9, *a*, *c-e*, *g*, and *i*; fig. 12, *a-e*; fig. 13, *a*, *c-g*, *i-j*, *m*, and *n*.
G. QUIMBY, 1942a, pp. 263-264, pl. XIII, figs. 1-7 and 9; pl. XIV, figs. 1-2 and 4.
C. S. BROWN, 1926, figs. 339-341. J. D. JENNINGS, 1941, pp. 178-179; pl. 6, figs. *f*, *h*, *i*.
C. B. MOORE, 1911, figs. 8, 9, 19, and 23; 1912, fig. 11; 1913, figs. 20, 23.

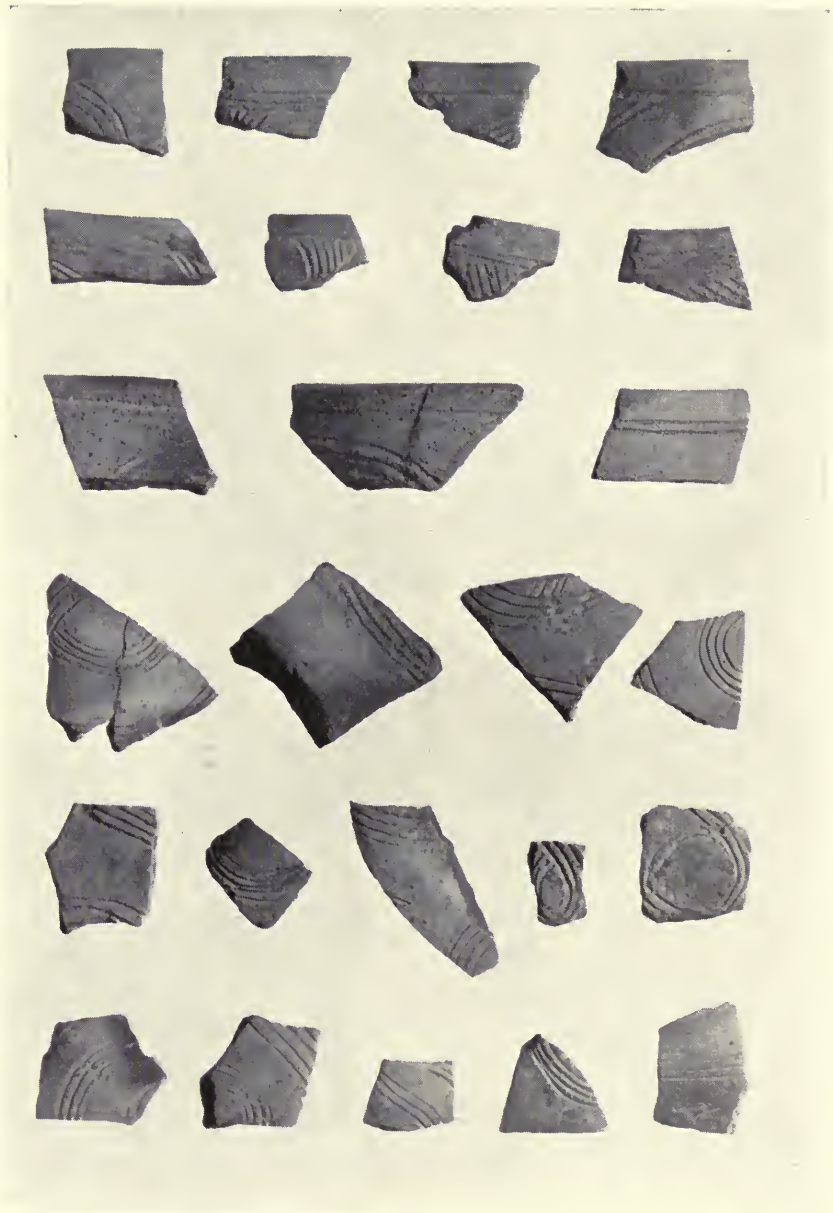


FIG. 38. Fatherland Incised sherds.



FIG. 39. Fatherland Plain sherds.

FATHERLAND PLAIN

(Figure 39)

Paste

Method of Manufacture: Coiling, but whether annular or spiral has not been determined. Coils were well obliterated and coil fractures occur sparingly.

Tempering: Very fine particles of grit, clay, shell, and unidentified organic matter. Occasional sherds show medium-fine particles of tempering material.

Texture: Fine, granular, and compact.

Hardness: Exterior surface hardness ranges from 2.5 to 3.

Color: Ranges from buff to dark gray. Most sherds are gray.

Surface

Modifications: Vessel surfaces are very smooth and sometimes polished. In some instances a red film has been applied to either the interior or exterior or both.

Decoration

None.

Form

Body: Shallow bowls with rounded bottoms.

Lip: Rounded or flattened with rounded shoulders.

Rim: Incurving.

Base: Rounded.

Size: Vessel thicknesses are fairly uniform and range from 0.5 cm. to 0.9 cm. Bowls average about 22 cm. in diameter and about 12 cm. in height.

Usual Range of Type

East central Louisiana along the Mississippi River and northward to area including and adjacent to Adams County, Mississippi.

Chronological Position of Type in Range

Natchezan period and up to early eighteenth century.

Probable Relationships of Type

Fatherland Plain is obviously related closely to Fatherland Incised. The only essential difference is the lack of decoration.

References

J. A. FORD, 1936, fig. 9, f. G. QUIMBY, 1942a, p. 264, pl. XV, figs. 4-7.



FIG. 40. Bayou Goula Incised sherds.

BAYOU GOULA INCISED

(Figure 40)

Paste

Method of Manufacture: Coiling, but whether annular or spiral has not been determined. Coils were well obliterated and coil fractures occur sparingly.

Tempering: Very fine particles of grit, clay, shell, and unidentified organic matter as a rule; occasional sherds show medium-fine tempering particles of clay.

Texture: Fine, granular, and compact.

Hardness: Exterior surface hardness ranges from 2.5 to 3.

Color: Ranges from buff to dark gray. Most sherds are dark gray.

Surface

Modifications: Vessel surfaces are very smooth and sometimes polished.

Decoration

Technique: Incising of fine lines with a pointed instrument, or perhaps a denticulated tool capable of producing multiple incised parallel lines.

Design: Carefully executed curvilinear designs consisting of scrolls and meanders produced by parallel incised lines in groups of four to seven or more lines. These scrolls or meanders are arranged in a wide band around the body of the vessel; individual scrolls or meanders usually are separated by triangular zones, sometimes line-filled, hanging from a line or several parallel lines encircling the rim of the vessel just beneath the lip. Major design elements—scrolls or meanders and the hanging triangles that separate them—occur in groups of four.

Position: Usually the design covers the vessel exterior from just beneath the lip to just above the base.

Form

Body: Shallow bowls with rounded bottoms.

Lip: Rounded or somewhat flattened.

Rim: Incurvate.

Base: Rounded.

Size: Vessel thicknesses are uniform and range from 0.5 cm. to 1 cm. These bowls average about 18–23 cm. in diameter and 8–12 cm. in depth.



FIG. 41. Natchez Incised sherds.

Usual Range of Type

East central Louisiana.

Chronological Position of Type in Range

Natchezan Period and up to early eighteenth century.

Probable Relationships of Type

This type is closely related to Fatherland Incised. In fact it is only the specific details of design that separate Bayou Goula Incised from bowls of Fatherland Incised. If it hadn't been for the intuitive feeling or hope that Bayou Goula Incised might turn out to be diagnostic of a specific tribe, it might well have been subsumed by Fatherland Incised. Bayou Goula Incised also is related to Fatherland Plain, Natchez Incised, and a probable Choctaw type, Chickachae Combed.

References

G. QUIMBY, 1942a, pp. 264-265, pl. XIII, figs. 10-16.

NATCHEZ INCISED

(Figure 41)

Paste

Method of Manufacture: Coiling, but whether annular or spiral has not been determined. Coils were well obliterated and coil fractures occur sparingly.

Tempering: Very fine or medium-fine particles of clay, grit, shell, and some unidentified organic matter.

Texture: Fine, granular, and compact.

Hardness: Exterior surface hardness ranges from 2.5 to 3.

Color: Ranges from buff to dark gray.

Surface

Modifications: Vessel surfaces are very smooth. Red filming occasionally occurs on sherds.

Decoration

Technique: Incising of fine lines with a pointed instrument.

Design: Rather carefully executed curvilinear patterns consisting of single lines or paired lines arranged in scrolls, meanders, and festoons in a broad band cover the vessel exterior from just above the base to just beneath the lip. In some instances, particularly on bowls, the major curvilinear motifs are separated by incised triangles in a band around the rim of the vessel. The major zone of decoration is often bounded at the rim just beneath the lip by one or two incised lines. In rare instances the band or zone between two incised lines is red-filmed, thus giving the impression of narrow red bands arranged in curvilinear patterns.

Position: Usually the design covers the vessel exterior from just beneath the lip to just above the base.

Form

Body: Shallow bowls with rounded bottoms and barrel-shaped jars with flat bottoms. Bowls were the only form found.

Lip: Rounded or somewhat flattened.

Rim: Incurvate on bowls and barrel-shaped jars, straight or slightly flaring on jars with constricted necks.

Base: Rounded on bowls, flat on jars. Platform or annular base sometimes appended to bowls, but not at Bayou Goula site.

Size: Vessel thicknesses were uniform and ranged in size from 0.5 cm. to 0.9 cm. Natchez Incised bowls averaged 18 cm. in diameter and from 8 to 10 cm. in height.

Usual Range of Type

East central Louisiana, and northward in the Mississippi River Valley to and including the area of Natchez, Mississippi.

Chronological Position of Type in Range

Natchezan Period and up to the early eighteenth century.

Probable Relationships of Type

Natchez Incised is most closely related to Leland Incised and Fatherland Incised and also has close relationships with Fatherland Plain and Bayou Goula Incised.

References

C. S. BROWN, 1926, fig. 344. J. A. FORD, 1936, fig. 9, *i* and *l*, fig. 23, *f*. C. B. MOORE, 1911, figs. 5, 7, 10, 11 (possibly), 21, and 24; 1913, fig. 16 (possibly). G. QUIMBY, 1942a, p. 265, pl. XIII, figs. 17-21. P. PHILLIPS, J. A. FORD, and J. B. GRIFFIN, 1951, fig. 99, *j*, *k*, *n*.

PROJECTILE POINTS

Fifty-three whole or fragmentary chipped flint projectile points were excavated from the Bayou Goula site. These have been classified into two major types. The first type is shaped somewhat like a swordfish; it has a tapered point which extends from a rounded body set on a fish-tail base (see fig. 42). These projectile points are rather narrow in proportion to their length, thin and elliptical in cross section. They range in length from 28 to 52 mm. and average about 3 mm. in thickness. The chipping is rather fine and the execution is good. There were 26 points or fragments of this type excavated from the site, two of which had serrated edges.

The second major class consists of small triangular stemmed projectile points. They, too, are thin and elliptical in cross section, although generally broader in proportion to their lengths. They range in length from 24 to 34 mm. and have an average thickness of 3 mm. They are excellently made



FIG. 42. Projectile points of chipped flint.

and the chipping is rather fine. There were 21 of these points excavated from the Bayou Goula site (fig. 43).

A variant of this type is characterized by the additional trait of eared shoulders, which make the point somewhat like a fir tree in outline. There were six examples of this variant (fig. 43, top row).

Thirty-four projectile points were associated with burial pits that were intrusive into mound 1. It is possible, however, that the association was accidental, resulting perhaps from the disturbance of a Plaquemine cache of points at the time the later occupants of the site dug the burial pits into the mound. Eighteen of these points were of the fish-shaped variety and sixteen of the points were of the triangular type. Five other fish-shaped projectile points and seven triangular points were found in the general excavations in the vicinity of the burials in mound 1 and may have been associated either with mound fill or with fill from the burial pits. Three additional fish-shaped points and four additional triangular points were found in the top layer of the site about thirty feet north of mound 1.

The fir tree or eared variant of the triangular class of points corresponds to the type Krieger has called Alba Barbed (Newell and Krieger, 1949, pp. 161-162 and fig. 56, *a-h*). Several other points in the triangular class seem to resemble closely the type Steiner Serrated (op. cit., pp. 162-163 and fig. 56, *o-q*).



FIG. 43. Projectile points of chipped flint.

BOATSTONES

Five boatstones were found in the thin layer of ash on the summit of the secondary mound that constituted phase 2 of mound 1.

These boatstones have a semi-lunar outline and a cross section that is trianguloid, with a flat apex and excurvate sides. Two are beautifully made of polished andesite (fig. 44, top). They have deep V-shaped grooves on top and small V-shaped notches at the ends. One of these is 15.4 cm. long, 3.5 cm. high, and 2.7 cm. wide; the other is 14.4 cm. long, 3.4 cm. high, and 2.4 cm. wide.

The remaining three boatstones were made of sandstone and were not so carefully executed. Moreover, they were in a fragmentary condition. One of these (fig. 44, bottom) after being mended was 13.6 cm. long, 4.1 cm. high, and 2.5 cm. wide. It had a shallow V-shaped groove at the top. The



FIG. 44. Ground and polished boatstones.

other two sandstone boatstones seem to have been of similar form, judging by the fragments recovered.

QUARTZ CRYSTALS

Two quartz crystals were found in the pit containing burial no. 3. One of these was 3.7 cm. long and 1.3 cm. wide, hexagonal in section, and grooved at the top. The other crystal was ungrooved, hexagonal in section, 3.2 cm. long, 1.9 cm. wide, and slightly ground at one end.

PIPES OF FIRED CLAY

Elbow pipes of fired clay (fig. 45) were found in association with the top level of the site. Although no whole specimens were found, bowl and stem pieces enable a reconstruction. These elbow pipes were of the equal-arm variety, with a squat, bulbous bowl and a short, thick stem that was flanged at the end. The stem hole was conical. In one instance, the pipe stem had been filled with molten lead (fig. 48) either to mend a crack or to



FIG. 45. Fragments of figurine and pipes.

convert the conical hole to a smaller and tubular hole. Three pairs of small holes were drilled into the sides and top of the stem and these holes as well as the crack in the bottom of the stem and the interior of the conical stem had been filled with molten lead. Presumably cane or wooden stems were inserted in the clay stems for added length.

Pipe bowls were about 3 cm. in diameter and 3 cm. high. The stems were about 3 to 4 cm. long and about 1.5 to 2 cm. in diameter.

CLAY FIGURINE

Part of a crude figurine of fired clay is illustrated (fig. 45). This object was 7.6 cm. long and 3 cm. wide. It was found in pit no. 6.

FAUNAL REMAINS

A preliminary identification of fragments of animal bone excavated from the Bayou Goula site showed the presence of the following animals: deer (*Odocoileus virginianus*); bear (*Euarctos americanus*); opossum (*Didelphis virginianus*); muskrat (*Ondatra zibethicus*); otter (*Lutra canadensis*); rabbit (*Sylvilagus* sp.); turkey (*Meleagris gallopavo*); alligator (*Alligator mississippiensis*); catfish (*Ameiuridae* sp.); garfish (*Lepisosteus spatula*); clam (*Rangia cuneata*); and oyster.

VEGETAL REMAINS

A section of a cypress log or post 116.7 cm. long and 15.2 cm. in diameter was found lying on the old humus level. This post was decorated with a carved zigzag down the center of one side.

Occasional deposits of charcoal, obviously the remains of fires, were found in pits or on hearths in most parts of the site.

Remains of vegetal foods consisted of one charred locust bean found in pit no. 9 and about 15 small, charred fragments of corncobs found in a pit associated with the old humus level.

IV. European Trade Objects

In the historic levels of the site European trade objects were found in association with artifacts of native manufacture. These trade objects consisted of beads, pipes, weapons, china, glassware, utensils, tools, and other items in demand among the Indians of the lower Mississippi Valley during the years from ca. 1700 to 1750.

TRADE BEADS

Le Page du Pratz, in speaking of the Indians of the lower Mississippi Valley ca. 1718–30, describes the trade beads as follows: "When they have beads (*rassade*) they make necklaces composed of one or many rows. They make them long enough for the head to pass through. The *rassade* is a bead of the size of the end of the finger of a small infant. Its length is greater than its diameter. Its substance is similar to porcelain. There is a smaller one, ordinarily round and white. They value it more than the other. There is a blue and one of another style which is banded (*bardeles*) with blue and white. The medium sized and smallest are strung to ornament skins, garters, etc." (Swanton, 1911, p. 56.)

Beads such as Du Pratz described, as well as other styles of beads, presumably traded to the Indians by the French, were found at the site (fig. 46).

GLASS BOTTLES

Glass bottles of at least two types were represented among the fragments found at the site. One type, the so-called "Dutch gin" bottle, was indicated by fragments of one specimen. It had a rectanguloid body, a concave bottom with a prominent pontil mark, and a short, round neck with an appliqué ring of glass on the outside of the neck about a centimeter beneath the mouth. The neck was twisted and the lip sheared. The bottle was made of translucent green bubble glass.

Another type, popularly called a "rum bottle," was represented by fragments of two or more specimens (fig. 47). This type consists of a cylindrical bottle with a concave bottom and a long, tapering neck with an appliqué ring of glass encircling the neck about a centimeter beneath the lip. The

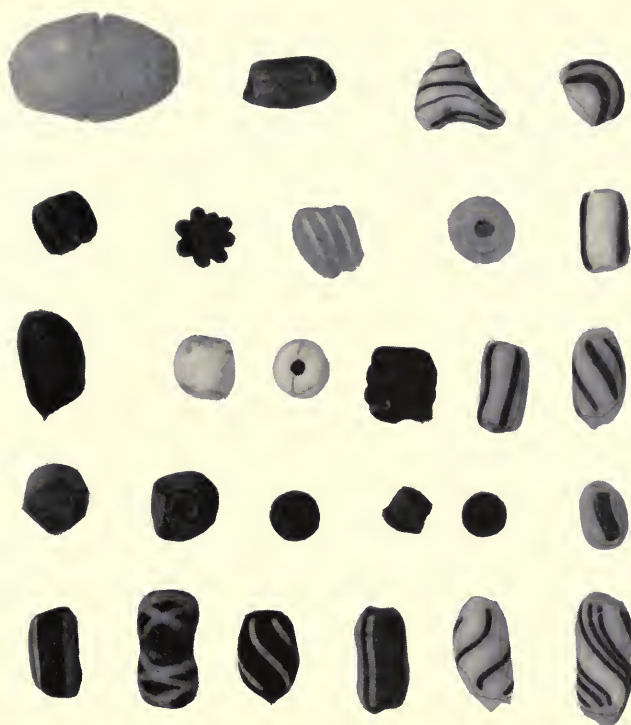


FIG. 46. European trade beads.



FIG. 47. European bottle fragments.



FIG. 48. Fragmentary trade objects and broken pipe stem with lining of lead.

neck is twisted and the lip is sheared. The glass is translucent, olive green, bubbled, and considerably iridescent.

An olive-green bubble-glass bottle seal (fig. 48), round, rather thin, and curved on the back to fit the contour of the bottle to which it was fixed, was excavated from the site. Upon the exterior of the seal was stamped in raised letters, "MEDOC," in a circular raised cartouche.

Basilar parts of blown glass tumblers were excavated from the site. These were thick and had a prominent, although smoothed, pontil mark.

CROCKERY AND EARTHENWARE

Fragments of crockery and earthenware were plentiful at the site.

Most of the crockery was in the form of bowls or jugs that were either glazed or unglazed. Glazes in monochrome or polychrome utilized the following colors: bright green, dull green, white, yellow, brown, and black. Occasional sherds of crockery were ornamented with simple geometric designs painted in glaze or with stamped or modeled designs and figures in relief.

Fragments of earthenware plates (fig. 49) found at the site were decorated with blue, green, and lavender designs on a white background or with mottled, dark blue designs on a white background.

PIPES

White clay trade pipes were represented by fragments. It was not possible to determine the lengths of the stems or the shapes of the bowls. The spurs at the bottoms of the bowls were short, round in section, and flat on the bottom.

Fragments of glazed clay pipe bowls were found at the site, but the style of pipe was not determined.



FIG. 49. Fragments of trade china.

COINS

A bronze French colonial coin (fig. 50) dated 1722 was excavated from refuse pit no. 1. On the obverse this coin bears a monogram crowned and "SIT NOMEN DOMINI BENEDICTUM." The reverse bears the inscription "COLONIES FRANCOISES," the date 1722, and the mint letter "H," which indicates that this coin was struck at the La Rochelle mint in France. There is authoritative evidence for the fact that such coins were minted at La Rochelle and Rouen in 1721-22 for circulation in the French colonies in America. The Compagnie des Indes sent 20,000 of these coins to Canada in 1722, and in 1724 there was a reduction in their value, apparently for circulation in Louisiana. Governor-General Veudreuil was only able to place 8,180 of the coins in circulation by May 5, 1723. In September of 1726 the coins that were not in circulation were returned to France.¹

¹ The historical data concerning this coin were graciously supplied in 1940 by Dr. James F. Kenney, Director of Historical Research, Public Archives of Canada; Mr. E. Z-Massicotte, Archivist, Old Court House, Montreal; and Mr. Sidney P. Noe, Secretary of the American Numismatic Society.

Upon the basis of all the evidence presented, it rather seems as if these 9 denier pieces could not have reached the Bayou Goula site before 1724 and perhaps even later.



FIG. 50. French coin from refuse pit.

COPPER AND BRASS ORNAMENTS

Fragments of copper or brass cut from kettles were plentiful at the site. The abundance of kettle fragments and the absence of whole kettles suggest that such trade utensils were used by the Indians primarily as a source of sheet brass and copper.

These brass or copper fragments may represent parts of kettles that could not be made into tinkling cones or other ornaments, or they may represent objects that were used as ornaments.

Other ornaments of brass and copper were tinkling cones, bells, ear ornaments, and bracelets. The tinkling cones, as already mentioned, were made by the Indians of metal cut from the trade kettles. According to the log-book of *Le Marin*, the Bayougoula and Mugulasha or Quinipissa wore feathers "above their buttocks, which are like tails of horses, which hang behind with rattles and miserable little pieces of copper, like the ends of our chandeliers, but much thinner, in such a manner that when they dance that makes a noise. . . ." (Swanton, 1911, p. 276.)

Archaeological evidence from other historic sites in the lower Mississippi Valley indicates that tinklers were also worn on strings around the ankles and wrists and as fringes on garments.

C-shaped bracelets made of brass were also found at the Bayou Goula site. With reference to the Bayougoula and Mugulasha (Quinipissa) Indians of 1699–1700, the log-book of *Le Marin* records the following:

"They have also a quantity of rings (manilles) around their arms." (loc. cit.)

Hawk bells or morris bells, not unlike the sleigh bells of more recent times, constituted another item of European trade found at the site. A bell of this type is a hollow sphere with a ring at the top and a narrow slot in the bottom. Inside the sphere is a small metal ball or stone. A small hand bell of brass with a clapper was also found at the Bayou Goula site.

Although contemporary French records do not describe bells of the Bayougoula Indians, Du Pratz records the use of bells among the nearby Natchez (op. cit., p. 127).

Brass ear ornaments of coiled wire were recovered from the site. In describing those found among the Natchez or perhaps among Indians of the lower Mississippi Valley in general, Du Pratz says, "The warriors may also have the lower parts of the ears slit, in order to pass through them iron or brass wire in the form of worm screws, a full inch in diameter." (Op. cit., p. 55).

One small finger ring of brass or copper wire was found at the site.

Plain brass buttons of two types were found in the site. Buttons of the first type were hollow spheroids with rings for attachment, and buttons of the second type were disks, either flat or concavo-convex, also with rings for attachment.

FLINTLOCK GUNS

Fragmentary remains of flintlock guns were found sparingly in the historic levels of the site. Gun flints were the most common and of these there were two types. The most abundant type consisted of a rectangular flint that was plano-convex in section and had a bulb of percussion at the top. The rarer style was also rectangular but was trapezoidal in section and lacked the bulb of percussion. Both types were made of dark gray or spotty, light gray flint.

Lead balls were also much in evidence, but actual gun parts were rare. Nondescript fragments of iron, badly rusted, probably were parts of lock mechanisms.

One identifiable find was the central part of a brass side plate. This was decorated with the engraving of a woman dressed in classical style and wearing what appears to be a classical Greek helmet (fig. 48).

SWORD FRAGMENTS

An elaborate sword guard of cast brass was found in a pit. This guard was ovoid in shape and concavo-convex in section. The decoration in low relief consisted of a woman in classical armor rising from a bilaterally symmetrical design composed of cannon, shields, fleur-de-lys, and leaves. On

either side of the woman were equestrian trumpeters, and above her was a grotesque face.

IRON KNIVES

Several types of iron knives were represented by the fragments excavated from the site. One type was somewhat like a modern butcher knife with a long, pointed blade and a tang for use in hafting. Another type consisted of a clasp knife with a blade that narrowed to a point. Near the base of the blade was a hole for an axle and at the top of the blade near its base was a transverse flange. Still another type was similar to the style just described except that the point was oblique from top to bottom. This type has been called a razor. Blades of clasp knives or razors were so badly rusted that the makers' names could not be ascertained. However, similar knife blades from an early historic site in Michigan were stamped with the names and marks of French manufacturers (Quimby, 1939, p. 27).

IRON AXES

Other artifacts of European manufacture found at the site were iron axes.

These axes are single-bladed, with a flaring bit and a loop type of haft. The top of the ax is approximately straight and perpendicular to the handle in contrast to the bottom of the ax, which, although straight, projects obliquely from the handle. The only discernible mark or stamp of any kind consists of a straight-sided, equal-armed cross in a circular cartouche. Between the arms of the cross are raised dots.

FABRIC SEAL

One fabric seal of lead was found in the excavations. Usually such seals are stamped with a date and/or other information. This seal, however, was so badly eroded that any date, if present, could not be determined. Similar seals from a French site in Michigan (Quimby, 1939) had dates ranging from 1734 to 1746.

SUMMARY

The European trade objects found in the historic levels of the site consist of beads of many styles, glass bottles, glass tumblers, crockery and earthenware, a French coin dated 1722, fragments of brass kettles, brass tinkling coins, brass bells, C-shaped bracelets and finger rings of brass wire, brass ear-ornaments of coiled wire, brass buttons, fragments of flintlock guns, musket balls, gun flints, a sword fragment, iron knives, iron axes, and a lead fabric seal.

All of these objects constituted a part of the material culture of the historic Indians in the Bayou Goula area some time between 1680 and 1750. Moreover, this complex of trade objects is tangible evidence of acculturation, which, when added to ethno-historical documentation, can provide some insight into the process of culture change under the kind of conditions that existed in the lower Mississippi Valley between 1680 and 1750.

V. Stratigraphy and Cultural Components

The physical stratigraphy alone indicated at least two levels of occupation at the site. The old humus level represents one occupation and the top level represents another. The intermediate zone of silt is a level in a physical sense, but it seems to be a geological not a cultural deposit. On the other hand the top level and the old humus level are cultural as well as physical levels. Therefore, it is the top level and the old humus level that are historically significant, and this historical significance can be demonstrated by an analysis of the ceramic content of the two cultural levels.

The sherd frequencies of pottery types from the old humus level, the intermediate silt zone, and the top level are presented in tabular form below:

Pottery types	Old humus	Intermediate silts	Top level
Addis Plain	1656	910	6126
Pontchartrain Check Stamped....	70	11	23
Hardy Incised.....	34	19	138
Manchac Incised.....	18	20	142
Plaquemine Brushed.....	4	1	10
Medora Incised.....	4	3	6
Dupree Incised.....	14	11	23
Harrison Bayou Incised.....	1	4	12
Evangeline Interior Incised.....	0	2	0
Neeley's Ferry Plain.....	7	0	63
Lulu Linear Punctated.....	0	0	3
Coles Creek Plain.....	13	0	0
Coles Creek Incised.....	10	5	0
French Fork Incised.....	15	0	3
Rhinehardt Punctated.....	4	0	8
Beldeau Incised.....	2	0	3
Larto Red Filmed.....	1	1	0
Chevalier Stamped.....	1	9	0
Fatherland Plain.....	0	6	1848
Fatherland Incised.....	0	4	725
Bayou Goula Incised.....	0	4	192
Natchez Incised.....	0	0	14
Pocahontas Punctated.....	0	0	28
Unclassified sherds.....	0	0	20
Total.....	1854	1010	9387

The contents of the intermediate zone of silts can be disregarded, because they probably are part of a secondary deposit derived from the old humus level and its associated features. What is important is that the

Natchezan pottery types such as Fatherland Plain, Fatherland Incised, Bayou Goula Incised, and Natchez Incised are found in the top level deposits and not in the old humus level deposits. Similar Natchezan pottery has been found at "pure" Natchezan sites (cf. Quimby, 1942a). The few Natchezan sherds in the intermediate zone of silts probably came from pits that were intrusive from the top level and unrecognized by the excavators.

The remaining pottery types in the top level are Plaquemine with a small residuum of Coles Creek—a combination typical of Plaquemine culture when it occurs in a relatively "pure" form. It is this combination indicative of the Plaquemine culture that occurs in a relatively "pure" form in the old humus level.

The old humus level contained a ceramic assemblage indicative only of the Plaquemine culture. This assemblage was similar to that found at the Medora site, a Plaquemine ceremonial center in West Baton Rouge Parish, Louisiana (Quimby, 1951). Natchezan pottery types were completely lacking in the old humus level.

The two mounds, both of which rested on the old humus level contained pottery types indicative of the Plaquemine culture. Mound 1 was excavated in terms of levels or phases of construction.

The sherd frequencies of the pottery types found in each level of mound 1 are as follows:

Pottery types	Mound phase no. 1	Mound phase no. 2	Mound phase no. 3
Addis Plain.....	466	248	3588
Hardy Incised.....	12	19	860
Medora Incised.....	3	15	7
Pontchartrain Check Stamped.....	5	3	45
Dupree Incised.....	13	1	32
Manchac Incised.....	2	0	45
Plaquemine Brushed.....	0	0	4
Harrison Bayou Incised.....	0	2	3
Lulu Linear Punctated.....	0	0	2
Australia Interior Incised.....	0	0	2
Coles Creek Incised.....	6	10	6
French Fork Incised.....	6	1	8
Rhinehardt Punctated.....	7	0	11
Beldeau Incised.....	0	4	2
Larto Red Filmed.....	0	0	1
Total.....	520	303	4616

All three stages of mound construction contain pottery types representative of the Plaquemine culture; therefore the mound is probably a part of the Plaquemine occupancy of the old humus level. Burial pits containing Natchezan pottery and in some cases historic trade objects are intrusive

into the mound, indicating that the Natchezan occupation of the site was later than that of the Plaquemine.

POTTERY TRENDS IN MOUND 1

The seriation of relative percentages of pottery types by level in mound 1 offers some insight into the development of Plaquemine pottery during the period in which the mound was constructed. In most instances the percentages were too low (less than 1 per cent) to be trustworthy. But two types, Addis Plain and Hardy Incised, occurred in quantities that were sufficient to indicate trends in terms of relative percentages. These trends are as follows: Addis Plain declined slightly in popularity and Hardy Incised showed a marked increase in popularity during the life of the mound.

FEATURES ASSOCIATED WITH THE TOP LEVEL

The burial pits intrusive into mound 1, the dwellings, the palisade walls, and the refuse pits were all associated with the top level. With the exception of a few pits, these features contained historic trade materials and/or pottery types representative of the Natchezan culture. These features, then, were a part of the Natchezan occupancy of the site. However, the top level and its associated features also contained quantities of Plaquemine sherds. This raises the question of the meaning of the Plaquemine pottery in the top level.

There are several ways to explain the presence of this pottery in the top level. One possibility is that the Plaquemine types persisted into Natchezan times. This thesis I reject. The quantities of Plaquemine sherds are too great; and the situation is contrary to the Natchezan assemblages of the same period observed elsewhere. Another possibility is that there was a Plaquemine occupancy of the top level after the four-foot zone of silt was deposited over the old humus level and before the Natchezan occupation of the site. This thesis I also reject, despite the fact that proof for the rejection is not clearly demonstrable. However, the lack of purely Plaquemine features on the top level, save for the possibility of a few pits, indicates the probable lack of a Plaquemine occupancy.

What seems most likely is that erosion of the top of both mounds by water and by plowing has scattered Plaquemine sherds over the surface of the site in large quantities. Distribution of sherds by erosion of mounds prior to the Natchezan occupancy of the site would account for the presence of Plaquemine sherds in Natchezan features and could even account for the top level pits, containing only Plaquemine sherds. Such pits would have been dug by bearers of Natchezan culture and the Plaquemine sherds would be accidental inclusions from the surface in areas where there had

not yet accumulated Natchezan debris. But regardless of the specific interpretation, it seems to be an archaeological fact that the "pure" Plaquemine occupation was beneath and earlier than the Natchezan occupation of the site.

STRATIGRAPHIC HISTORY

Analyses of the cultural remains and the physical features of the Bayou Goula site indicate that the site contained two clearly recognizable cultural components—a Plaquemine period of occupation followed by a Natchezan period.

The Plaquemine occupation was manifested by two mounds and a plaza at the old humus level. Four or five feet of silt were deposited by water over the site so that only the upper parts of the mounds rose above the silt. Then erosion of the mound tops distributed Plaquemine period sherds over the top of the silts. (There is the possibility of a reoccupation of the new surface by Plaquemine Indians, but it does not seem probable.) At some time subsequent to the silting of the site there was an occupancy by Natchezan Indians. Historic evidence suggests that this occupancy lasted into the first half of the eighteenth century.

Plaquemine Period Traits

Cultural characteristics of the Plaquemine occupancy of the site were the following:

Cultural characteristics	Frequency
Composite pyramidal mounds with flat summits	2
Structures on mound summits	present
Plaza between mounds	1
Hearths and refuse pits	present
Corn	present
Use of local fauna	present
Decorated cypress post	1
Simple plaited basket or mat	1
Boatstones	5

Pottery types	Number of sherds
Addis Plain	13,130
Hardy Incised	± 1,089
Plaquemine Brushed	19
Neeley's Ferry Plain	11
Medora Incised	38
Manchac Incised	231
Dupree Incised	96
Lulu Linear Punctated	5
Harrison Bayou Incised	22
Evangeline Interior Incised	2
Australia Interior Incised	2
Pontchartrain Check Stamped	133
Coles Creek Incised	32
Coles Creek Plain	13

	Number of sherds
French Fork Incised (variety)	38
Rhinehardt Punctated	30
Beldeau Incised	11
Chevalier Stamped	2
Larto Red Filmed	2

Natchezan Period Traits

Cultural characteristics of the Natchezan occupancy of the site were as follows:

Cultural characteristics	Frequency
Rectangular dwellings	8
Linear palisade walls	present
Refuse pits and/or hearths	14+
Hearths	present
Burials in pits intrusive into old mounds	present
Single burial in grave pit	present
Multiple burial in grave pit	present
Bundle burials	9
Isolated skull burials	3
Semi-flexed burials	1
Extended burials	1
Use of local fauna	present
Locust seed	1
Fish-shaped arrow points	26
Triangular stemmed arrow points	21
Eared or fir-tree arrow points	6
Arrow points made of garfish scale	present
Quartz crystals	1
Grooved quartz crystals	1
Figurine of fired clay	1
Elbow pipes of fired clay	present

Pottery types	Number of sherds
Fatherland Plain	2,355
Fatherland Incised	869
Bayou Goula Incised	218
Natchez Incised	18
Necley's Ferry Plain	63
Pocahontas Punctated	28

It is the Natchezan period and its cultural characteristics that are of particular interest in the following chapter. I shall attempt to show what light can be thrown on the historic occupancy of the site by means of ethno-history.

VI. Ethno-historical Descriptions of Material Culture (1682-1750)

In the period between 1682 and 1750, the Indian tribes of the lower Mississippi Valley were in contact with French explorers, missionaries, soldiers, and settlers, some of whom kept records of various kinds. From such records Swanton (1911, 1946) compiled ethno-historical descriptions of lower Mississippi Valley tribes, including the Bayougoula, Mugulasha (Quinipissa), Acolapissa, Tiou, Taensa, Chitimacha, and Houma. The following are some of the descriptions of material culture that one might expect to find in the course of archaeological investigations.

TEMPLES, CHIEFS' HOUSES, AND DWELLINGS

All of the different groups of Indians in the Bayou Goula area had temples and chiefs' houses that were larger than the ordinary dwellings of the villagers. The Bayougoula temple, according to Iberville, who saw it in 1699, "was a cabin, made like all the others in which they are lodged, made of staves, 30 feet across and round, built with mud to the height of a man. . . . At the entrance was a shed 8 feet wide and 12 feet long, held up by two great pillars, with a cross-piece which served as a girder. At the side of the temple door there were many figures of animals, such as bears, wolves, birds, on this side, that of one which they call Choucouïacha [Opossum]. . . . The door of the temple is 8 feet high and $2\frac{1}{2}$ wide. [On the roof of the temple] . . . there were figures of animals, like cocks, painted red. [Inside the temple] . . . in the middle were two logs of dry, decayed wood, placed end to end, which were burning; at the inner end there was a platform, on which were many bundles of deer, bear, and bison skins, which were presents offered to their god. . . ." (Swanton, 1911, p. 275.)

Additional information about the temple comes from the journal of Du Ru or Du Rut in 1700. He recorded that it was shaped like the dome of the "College du Plesis" and was covered with thatch and cane mats (Albrecht, 1941, p. 27).

There is little available information about chiefs' houses. Iberville was conducted to the cabin of the chief of the Mugulashas, and Du Ru recorded

that 300 persons could assemble in the chief's house (Swanton, 1911, p. 275; Albrecht, 1941, p. 27), thus implying that the chief's house was considerably larger than the ordinary dwellings of the village.

Although Iberville stated that there were two temples in the Bayougoula village (Swanton, 1911, p. 275), the log-book of *Le Marin* mentions only one temple with a chief to take care of the fire. Both Iberville and Du Ru mention specifically only one chief's house; consequently, it is probable that the Bayougoula village contained only two large sacred buildings—a temple and a chief's house.

The 107 ordinary dwellings in the Bayougoula village were built like the temple and the chief's house. Iberville wrote, in 1699: "I went into the village and saw the cabins made like the temple, with the shed close to it, some larger, others smaller, covered with canes split and joined together neatly, without windows. These cabins obtain their daylight from above, through an opening 2 feet in diameter, without pavement or flooring other than sand or dry earth." (Swanton, 1911, p. 275.) The log-book of *Le Marin* records that there were "large huts made dome shaped. . . ." (Op. cit., p. 277.)

In 1706 Penicaut wrote that the Acolapissa "have a round temple. . . . There are at the door of the temple wooden figures of birds; there are in the temple a quantity of little idols, as well of wood as of stone, which represent dragons, serpents, and varieties of frogs. . . ." (Op. cit., p. 282.)

Acolapissa houses, as seen by Charlevoix in 1722, were as follows: "Their cabins are in the shape of a pavilion like those of the Sioux. . . . They have a double roof; that in the inside is made of leaves of the palmetto interwoven together; that on the outside is made of mats. The cabin of the chief is 36 feet in diameter. I had not before seen one so large. . . ." (Op. cit., p. 283.)

The best descriptions of an Acolapissa temple and a chief's house are those of De Batz, who made annotated drawings of them in 1732. De Batz's text describes the temple as follows: "Temple of the Savages, constructed of posts in the ground, covered with mats of cane, and roofed with same, ending in three [points] of wood, $3\frac{1}{2}$ feet long, 18 inches [wide] and 4 inches thick, crudely colored and [sculptured]. The 3 pyramids [are of] reedwork trimmed with pointed canes [to] prevent one climbing to the 3 figures, the body and tail of which represent turkeys and the head that of the eagle, which seemed to us the most like it. . . . The temple is 22 feet long and 14 feet wide; it serves as the sepulcher for the chiefs of the nation." (Bushnell, 1927, p. 4 and pl. 1.) The temple thus described must have been oval or more likely rectangular with rounded corners and with a roof in the shape of a modified dome. The modification of the dome seems to have

been a short ridge or gable from which rose the three pyramidal supports for the three birds surmounting the temple.

The chief's cabin pictured by De Batz he describes thus: "Cabin of the Chief, of posts in the ground plastered with clay or earth mortar, also covered with mats . . . all the cabins of the savages are of similar construction, all being round, this one is 18 feet in diameter." (Loc. cit.)

De Batz's visit to the Acolapissa village occurred in 1732, a period in which the Bayougoula, Acolapissa, and Houma were fused into one nation. Consequently we cannot be certain whether De Batz is describing a village of the Acolapissa proper or an amalgamation of Acolapissa, Bayougoula, and Houma. In any event the ordinary dwellings and chiefs' houses were round with conical roofs and the temple was oval or rectangular with rounded corners and with a roof in the form of a modified dome.

Although the Houma were observed repeatedly by the early French explorers and missionaries, none of them described Houma temples and houses in any detail. In 1699 Iberville stated that all the cabins were "on the edge of the hill, in a double row in places, and arranged in a circle." (Swanton, 1911, p. 286.) Iberville's account mentions a chief's house, and the log-book of *Le Marin* records the presence of a temple. This temple was seen in 1700 by Gravier who wrote: "There is nothing fine about the temple except the vestibule, which is embellished with the most pleasing and best executed grotesque figures that one can see. There are four satyrs, two of which are in relief, all four standing out from the wall, and having on their heads, their hands, and their legs—for fillets, bracelets, garters, baldrics, and belts—snakes, mice, and dogs. The colors are black, white, red, and yellow. . . ." (Op. cit., p. 288.)

Swanton (1946, p. 418) has suggested that Houma houses and presumably temples were square. There is some evidence for this suggestion, as follows: In 1721 Charlevoix visited the Tunica, who were residing in a former Houma village on the Mississippi opposite the mouth of the Red River. Charlevoix stated that "The other cabins of the village are partly square as that of the chief, and partly round. . . ." (Swanton, 1911, p. 313.) Swanton (1946, p. 417) says: "It is a fair inference that the square houses were those which had formerly belonged to the Houma and round ones the dwellings which the Tunica had themselves constructed"; for Gravier in 1700 reported that Tunica cabins were "round and vaulted." Moreover, the houses and temples of the Taensa and the Natchez were square in 1700 and later. And since at this time the Houma were living on the river just below the Natchez, it looks, according to Swanton, as if there had been a "house with square foundation in use along the lower Mississippi from a point below the mouth of the Yazoo to the mouth of the Red."

Such a house was described by Le Page du Pratz for the period ca. from 1718 to 1730. His description follows:

"The cabins of the natives are all perfectly square. There is not one which measures less than 15 feet each way, but there are some more than 30. . . . The natives go into the young woods in search of poles of young walnut hickory trees 4 inches in diameter by 18 to 20 feet long. They plant the largest at the four corners to fix the dimensions and the size of the dome. But before planting the others they prepare the scaffold. This is composed of four poles fastened together above, the ends below resting on the four corners. On these poles they fasten others crosswise 1 foot apart, all making a four-sided ladder or four ladders joined together.

"That done they plant the other poles in the earth in straight lines between those at the corners. When they are thus planted they are bound firmly to a cross pole on the inside of each face (or side). For this purpose they use great cane splints to bind them, at the height of 5 or 6 feet, according to the size of the cabin. This forms the walls. These erect poles are not more than 15 inches apart. A young man then mounts to the top of a corner post with a cord between his teeth. He fastens the cord to the pole, and as he mounts inward the pole bends because those who are below draw the cord to make the pole curve as much as is needed. At the same time another young man does the same to the pole forming the angle opposite. Then the two poles, bent to a suitable height, are firmly and smoothly bound together. The same is done to the poles of the two remaining corners which are made to cross the first. Finally all the other poles are joined at the top, giving the whole the appearance of a bower in a greenhouse such as we have in France. After this work canes are fastened to the lower sides or walls crosswise about 8 inches apart, as high up as the pole which I have spoken of as determining the height of the walls.

"These canes being fastened in this manner, they make mud walls of adobe in which they put a certain amount of Spanish beard moss. These walls are not more than 4 inches thick. No opening is left except the door, which is but 2 feet wide at most by 4 in height, and some are very much smaller. Finally they cover the framework I have just described with cane mats, placing the smoothest on the inside of the cabin, and they fasten them to each other carefully so that they will join well.

"After this they make many bundles of grass of the tallest they can find in the low grounds, which are 4 or 5 feet long. They are laid down in the same manner as the straw with which cottages are covered. They fasten this grass by means of large canes and splints also made of cane. After the cabin has been covered with grass they cover all with cane mats well bound together, and below they make a circle of lianas all the way around the

cabin. Then the grass is clipped uniformly, and in this way however high the wind may be, it can do nothing against the cabin. These coverings last twenty years without replacing." (Swanton, 1911, pp. 59-60, or 1946, pp. 418-419.)

Le Page du Pratz's description of a square house as given above probably refers to the Natchez of the period ca. from 1718 to 1730. However, similar houses were constructed by the Taensa and probably the Houma ca. 1700, and it is possible that such houses were constructed by the remaining Taensa and the Houma in the Bayou Goula area in Du Pratz's time.

As previously mentioned, the Taensa temples and houses of ca. 1700 were square with domed roofs. In 1682 Tonti noted: "The cabin of the chief was 40 feet square, the wall 10 feet high, a foot thick, and the roof, which was of a dome shape, about 15 feet high." (Swanton, 1911, p. 260.) In another description of the same building Tonti recorded: "They first made us enter a cabin having a front of 40 feet; the walls of mud, 2 feet thick and 12 high. The roof is made dome shaped, of cane mats, so well worked that the rain does not pierce through them at all." (Op. cit., p. 259.)

The temple of the Taensa was similar to the chief's house. Tonti wrote: "There is a temple opposite the house of the chief, and similar to it, except that three eagles are placed on this temple, who look toward the rising sun. The temple is surrounded with strong mud walls, in which are fixed spikes, on which they place the heads of their enemies whom they sacrifice to the sun. At the door of the temple is a block of wood, on which is a great shell, and plaited round with the hair of their enemies in a plait as thick as the arm and about 20 fathoms long. The inside of the temple is naked; there is an altar in the middle, and at the foot of the altar three logs of wood are placed on end, and a fire is kept up day and night. . . ." (Op. cit., p. 260.)

Another account of the Taensa temple by Tonti in 1682 is as follows: "The temple, the cabin [of the chief], and seven or eight cabins of the old men are surrounded by stakes and make a kind of fort; on the stakes human heads are placed; the temple is dome-shaped, the door painted red. . . . This temple is oval, 30 feet long and 12 broad inside, ornamented with works of canes all painted red. The dome is covered with a very beautiful mat and the lower parts with earth. The pieces of wood which make the roof extend outside through the middle about 2 feet, crossing each other." (Op. cit., p. 263.)

According to the account of La Source and De Montigny, who visited the Taensa in 1698, "They have a pretty large temple with three birds well made, serpents and other like superstitions. The temple is encircled by an

inclosure made like a wall. It is almost covered with skulls." The temple "of the Taensas has walls 7 or 8 feet thick on account of the great number of mats one on another." (Op. cit., pp. 264-265.)

What seems to have been a description of the Taensa temple in 1699 was recorded at a later date by Le Petit, who used a presumably authentic but unknown source (op. cit., p. 161). Le Petit's description follows: "They have a temple filled with idols, which are different figures of men and of animals. . . . Their temple in shape resembles an earthen oven, 100 feet in circumference. They enter it by a little door about 4 feet high and not more than 3 in breadth. No window is to be seen there. The arched roof of the edifice is covered with three rows of mats, placed one upon the other. . . . Above on the outside are three figures of eagles made of wood, and painted red, yellow and white. Before the door is a kind of shed with folding doors, where the guardian of the temple is lodged; all around it runs a circle of palisades, on which are seen exposed the skulls of all the heads which their warriors had brought back from the battles. . . .

"In the interior of the temple are some shelves . . . on which are placed cane baskets of an oval shape, and in these are inclosed the bones of their ancient chiefs. . . . Another separate shelf supports many flat baskets very gorgeously painted, in which they preserve their idols. These are figures of men and women made of stone or baked clay, the heads and tails of extraordinary serpents, some stuffed owls, some pieces of crystal, and some jawbones of large fish.

"In this temple they take care to keep up a perpetual fire . . . of . . . three large logs, which do not burn except at the extremity. . . ." (Op. cit., p. 269.)

In 1700 the Taensa temple was struck by lightning and completely destroyed in the resulting fire. Immediately following this disaster the chief's house was converted into a temple (op. cit., p. 268). Six years later the Taensa abandoned their village and moved to the village of the Bayougoula.

The temple and houses of the Tiou probably were square after 1700 and perhaps round before that time. The Tiou were a Tunican tribe who left their old village on the Yazoo River at a date not much earlier than 1682 and moved southward, eventually settling among the Natchez (Swanton, 1946, p. 194). The Tunica and related peoples on the Yazoo had temples and houses that were round and vaulted, so it is probable that the Tiou houses and temples were also round and vaulted before the Tiou became a Stinkard village of the Natchez. Natchez temples and houses were square according to all contemporary observers except Charlevoix, who says in one report that they were round and in another that they were square. If Charlevoix' seemingly contradictory observations were true, it is possible

that different Natchez villages had different house types. For instance, the Tunican groups such as the Tiou and the Grigra, each of which constituted a separate Natchez village, might have had round houses, whereas villages of the Natchez proper had square houses. There is, however, little evidence of this possibility, and it seems probable that Tiou houses were square in the period after the Tiou joined the Natchez.

There are no satisfactory data on Chitimacha houses and temples of the early eighteenth century or before. However, Swanton writes: "Their houses . . . consisted mainly of palmetto leaves over a framework of poles. . . . The houses of the chiefs were larger than those of the common people." Information presumably applicable to nineteenth or perhaps late eighteenth century conditions mentions a smoke hole in Chitimacha dwellings, a characteristic also attributable to the Bayougoula (Swanton, 1911, p. 345). A nineteenth century dance house used for religious purposes was 12 feet square with a pointed roof (op. cit., p. 352). Thus what little evidence exists does suggest that the ground plan of Chitimacha structures was square.

Summary: Buildings with square foundations seem to have been constructed by the Taensa, the Houma, and probably the Tiou and Chitimacha. Buildings with round or oval foundations seem to have been built by the Bayougoula, the Mugulasha (Quinipissa), and the Acolapissa. These ethno-historical data are not sufficiently detailed for exact comparison with the archaeological data revealed by excavation at the Bayougoula site. However, inasmuch as the excavated houses were rectangular, they more nearly correspond to the houses of the Taensa, Houma, Chitimacha, and Tiou. Probably these excavated houses were the product of some division of the amalgamated Houma, Acolapissa, and Bayougoula.

BEDS

Writing of the Bayougoula, Iberville stated: "Their beds are on square posts, raised 2 feet from the earth, with crosspieces of red wood, as large around as the arm, and a mat stretched upon them, of small canes bound together in such a manner that they are very straight but not very soft." (Swanton, 1911, p. 275.)

In the log-book of *Le Marin* is the information that the Bayougoula "sleep most of the time on mats, which are raised on four posts to a height of 3 feet from the earth, under which they put fire during the night in order to keep their houses or cabins warm." (Op. cit., p. 277.)

There is no available information on Tiou beds, but writing of the Tunica, who were related to the Tiou, Gravier says: "Their bed is of round canes, raised on 4 posts, 3 feet high, and a cane mat serves as a mattress." (Op. cit., p. 315.)

Occasional post molds found within the houses outlined by wall trenches may have been the remains of beds. The evidence is not conclusive.

GRANARIES

Some of the lower Mississippi Valley tribes had granaries; for instance, the Tunica, who were related to the Tiou, had structures for storing crops. Gravier stated that "their granaries are near their cabins, made like dove-cotes, built on 4 large posts, 15 or 16 feet high, well put together and well polished, so that the mice cannot climb up, and in this way they protect their corn and squashes." (Op. cit., p. 315.) The Natchez too had granaries. Du Pratz (op. cit., p. 113) said that the granary which they made for storing corn was round and had the shape of a tower, and the bottom was raised 2 feet above the earth. It was furnished inside with cane mats. The bottom was made of large whole canes, and the outside was also provided with them. They put the corn in cane baskets, climbed the ladder, and threw it into the granary. The covering, owing to the manner in which it was made, protected the grain from even the greatest storms.

None of the French accounts mention granaries for the tribes who probably were occupants of the Bayou Goula site. This possibly is an oversight on the part of the early French observers. However, no evidence of granaries was recognized in the excavation of the site.

CEREMONIAL POSTS

In 1699 the village of the Bayogoulas had two large ceremonial posts in the central plaza. The writer of the log-book of *Le Marin* says: "I saw in the middle of the village, which is like a great parade ground, two great posts, 40 feet in height, before their temple, on which two scalps were placed." (Swanton, 1911, p. 276.)

STOCKADES

Speaking generally of forts along the lower Mississippi, Du Pratz writes: "I cannot describe these forts better than by comparing them to a barrel hoop from which the withes have been cut. This circle is relaxed and the outside end is at some distance from the inside end. . . . It is by this opening that one enters the fort, the inner side of which is protected by a half tower and the outer side in the same way. . . . The walls of these forts are composed of great posts, which are made of the trunks of trees a span in circumference, buried 5 to 6 feet in the earth and extending 10 feet above it, and pointed above. The lines of contact of these posts, however round, are covered inside with other posts a foot in diameter. This wall is provided outside with half towers 40 paces apart. The lower ends of the

posts are supported inside by a banquette 3 feet wide by as much in height, which is itself supported by stakes bound together with green branches in order to retain the earth which is in this banquette. In the middle of the fort is placed a tree, the branches of which are cut to within 8 or 9 inches of the trunk to serve as a ladder. This tree serves them as a watch-tower, where a young man on guard can discover the enemy at a distance. Around this ladder are some cabins to protect the women and children from falling arrows. The gate of such a fort is always on the side toward the water." (Swanton, 1946, pp. 436-437.)

According to Iberville, the Bayougoula village "was surrounded by a palisade made entirely of canes 1 inch apart and 10 feet in height, without a door to close it." (Swanton, 1911, pp. 274-275.)

Probable evidence of this or a similar palisade at the Bayou Goula site was found in the form of rather long sections of wall trenches that may have been dug to hold the upright canes.

BURIAL PLATFORMS

Some of the lower Mississippi tribes had the custom of placing the deceased upon wooden platforms. For instance, the Bayougoula, according to Iberville, "put their dead bodies on scaffolds around their village, very near, raised 7 feet from the earth, enveloped in cane mats and covered with one in the shape of the roof of a house, which stink much and gather many crows about." (Op. cit., p. 276.) The log-book of *Le Marin* states: "When any of their people die they carry them 50 paces from their village to 4 posts, where they place the body, covered above and below with mats made like a coffin, 4 feet above the ground, whither they carry food." (Op. cit., p. 277).

Writing of the Acolapissa Penicaut says: "When a savage dies, they prepare a kind of tomb, or rather scaffold, raised 2 feet from the ground, on which they place the dead body. They cover it well with rich earth and put over it the bark of trees, for fear of the animals and birds of prey; then underneath they place a little pitcher filled with water, with a dish full of meal. Every evening and morning they light a fire there beside it and go to weep there. The richer hire women to perform this latter office. At the end of six months they unwrap the body of the dead; if it is consumed, they put the bones into a basket and carry them to their temple; if it is not consumed, they remove the bones and bury the flesh." (Op. cit., p. 282).

According to Gatschet, as quoted by Swanton (op. cit., p. 350), the Chitimacha had the following burial customs: "One year after the death of a head chief, or of any of the village war chiefs . . . their bones were dug up by a certain class of ministrants called 'Turkey-buzzard men' . . . the

remaining flesh separated, the bones wrapped in a new and checkered mat, and brought to that lodge [the temple]. The inhumation of these bones took place just before the beginning of the . . . worshipping ceremony or dance. The people assembled there, walked six times around a blazing fire, after which the bones were placed in a mound."

The bundle burials found at the Bayou Goula site fit the ethno-historical descriptions. These burials, however, had been placed in grave pits dug into an old mound built by earlier peoples. It is barely possible that the Chitimacha custom of placing bones in a mound (if properly interpreted ethnologically) is represented here.

No direct evidence of burial platforms was found at the site.

POTTERY

All the tribes here considered made pottery. The best description is that of Du Pratz, who probably had in mind the Natchez. He stated that the women "go in search of heavy earth, examine it in the form of dust, throwing out whatever grit they find, make a sufficiently firm mortar, and then establish their workshop on a flat board, on which they shape the pottery with their fingers, smoothing it by means of a stone which is preserved with great care for this work. As fast as the earth dries they put on more, assisting with the hand on the other side. After all these operations, it is baked by means of a great fire. These women make pots of an extraordinary size, jugs with a medium-sized opening, bowls, two-pint bottles with long necks, pots or jugs for bear's oil, which hold as many as 40 pints, also dishes and plates like those of the French." (Swanton, 1946, p. 549.)

Du Pratz writes of bluffs containing "many veins of white earth, rich and very fine, with which I have seen very beautiful pottery made. On the same bluff one sees veins of ocher which the Natchez get to daub on their pottery which was very pretty; when it was coated with ocher it became red on being baked." (Op. cit., p. 550.)

Dumont, also probably speaking primarily of the Natchez, says that the women made "all kinds of earthen vessels, dishes, plates, pots to put on the fire, with others large enough to contain 25 to 30 pots of oil." (Loc. cit.) According to Dumont, the method of manufacture was as follows:

"After gathering the earth suitable for this kind of work, and having well cleansed it, they take shells which they grind and reduce to a very fine powder; they mix this very fine dust with the earth which they have provided, and moistening the whole with a little water, they knead it with the hands and feet, forming a dough of which they make rolls 6 or 7 feet long and of whatever thickness is desired . . . they take one of these rolls and, holding down one end with the thumb of the left hand they turn it around

with admirable swiftness and dexterity, describing a spiral; from time to time they dip their fingers in water, which they are always careful to have near them, and with the right hand they smooth the inside and outside of the vessel they intend to form, which, without this care, would be undulated.

"In this manner they make all sorts of utensils of earth, dishes, plates, pans, pots, and pitchers, some of which contain 40 and 50 pints. The baking of this pottery does not cause them much trouble. After having dried it in the shade they build a great fire, and when they think they have enough coals they clear a place in the middle where they arrange the vessels and cover them with the coals. It is thus that they give them the baking which is necessary. After this they can be placed on the fire and have as much firmness as ours. Their strength can only be attributed to the mixture which the women make of the powdered shells with the clay." (Loc. cit.)

Information on Tiou pottery is not available, but of the Tunica, who were closely related to the Tiou, Gravier said that they had "earthenware pots, quite well made, especially little glazed pitchers, as neat as you would see in France." (Loc. cit.)

Bayougoula pottery was not well described. Iberville wrote: "They have . . . earthen pots, which are quite neat and delicate and well worked." (Swanton, 1911, p. 275.) Du Ru wrote of large pots made of shell ground fine and baked before a fire. The pottery was very thin, light, and fragile (Albrecht, 1941, p. 28).

Taensa pottery, according to Tonti, was "earthen, very well glazed, and made like cups." (Swanton, 1911, p. 259.)

These contemporary descriptions of pottery made by the Indians of the lower Mississippi Valley are too general to be of specific use. Moreover, it is puzzling to note references to vessels with a capacity of 40 or 50 pints (five or more gallons). Such vessels were not found in the historic level of the Bayou Goula site or in other historic sites in the lower Mississippi Valley (cf. Quimby, 1942a).

KNIVES

In 1682 Tonti observed that the Taensa "knives are of flint." (Swanton, 1911, p. 259.) But according to Du Pratz, the Natchez, who were related to the Taensa, made knives of cane. He stated that the canes that grew in dry areas were so hard "that these people used split portions of these canes . . . with which to cut their meat before the French brought them knives." (Op. cit., p. 58.) Knives of flint or cane were not found in the excavation of the Bayou Goula site.

PROJECTILE POINTS

Although arrow points of chipped flint were found, seemingly in the historic levels, at the Bayou Goula site, the contemporary French observers did not mention stone points. On the contrary, where points were mentioned at all, they seem to have been made of cane, fire-hardened wood, bone, or garfish scales. The only available description is that of Du Pratz and probably applies to the Natchez. He says: "They fashion their arrows from wood . . . which . . . is very hard. The points are put into the fire to harden." Paraphrasing Du Pratz, Swanton (1911, p. 58) continues: "Feathers were fastened to these arrows by means of fish glue. Arrows for killing birds or small fishes were made out of little pieces of hard cane, but those intended for the bison or the deer were armed with great splinters of bone adjusted in a split end of the arrow shaft. War arrows were ordinarily armed with scales of the garfish. Arrows intended for large fish were provided with a bone pointed at both ends so that the first point pierces and makes an entrance for the arrow, and the other end, which stands out from the wood, prevents the arrow from falling out of the fish's body." The bone pointed at both ends must have been a point with a single barb.

Acolapissa arrows have not been described, but a drawing made by De Batz in 1732 (Bushnell, 1927, pl. 1) shows an Acolapissa man with hunting equipment. He is standing beside the temple. Over his left shoulder is what appears to be a quiver full of arrows. In his right hand is a leash which holds a small bear and in his left hand is a bow and a single arrow. The arrow is tipped with what appears to be a large point with a single barb and probably is like the bone point that the Natchez used for large fishes.

In addition to the flint points found at the Bayou Goula site there were garfish scales that could have been used as arrow points. However, no bone points were found.

Since the French observers did not mention stone points, it is possible that they were lacking in the lower valley in the period from 1682 to 1750. If this should prove to be the case, the archaeological interpretation of the position of the stone points found at the Bayou Goula site would be in error. In such a case there are several possible explanations. One possibility is that the points originally were a Plaquemine cache that was disturbed and scattered by the grave digging of the later occupants of the site. Another possibility is that the stone points were Taensa antiques used in burial ceremony. But until more and definite evidence is available, it may be assumed that the occupants of the site during the historic period

had stone projectile points and that the contemporary French amateur ethnologists either did not see the points or neglected to mention them.

AXES

Writing of the Taensa, Tonti stated: "Their knives are of flint as well as their axes." (Swanton, 1911, p. 259.) Except for Du Pratz's highly improbable description of axes (op. cit., p. 58), which would make better sense if intended to refer to a "ceremonial" form, there are no accounts of stone axes in the lower Mississippi Valley by the early French observers. No stone axes were found at the Bayou Goula site.

CHUNKEY STONES

According to the log-book of *Le Marin*, the Bayougoula and the Murgulasha "pass the greater part of their time playing . . . with great sticks, which they throw after a little stone, which is almost round like a cannon ball." (Op. cit., p. 277.) Gravier, speaking of the Houma, says: ". . . in the middle of the village is a fine and very level space, where from morning to night, young men exercise themselves. They run after a flat stone, which they throw in the air from one end of the square to the other, and try to make it fall on two cylinders, which they roll wherever they think the stone will fall." (Op. cit., p. 288.) Unfortunately no discoidals (chunkey stones) were found at the Bayou Goula site.

HOES

According to the log-book of *Le Marin*, the Bayougoula had fields "near their villages, where they dig with bones of bison. . . ." (Op. cit., p. 277.) The "bones of bison" probably were hoes made of the shoulder blades of bison. However, none was found in the excavation of the site.

BRACELETS

The Bayougoula men wore "a quantity of rings around their arms," according to the log-book of *Le Marin* (op. cit., p. 276). Possibly these were similar to those worn by the Natchez men and described by Du Pratz as "bracelets made of the ribs of deer which they have worked down very thin and bent in boiling water. These bracelets are as white and as smooth as polished ivory outside." (Op. cit., p. 55.) No such objects were found in the excavations of the Bayou Goula site.

NOSE ORNAMENTS

The log-book of *Le Marin* records that the Bayougoula men had "the nose pierced, to which there hangs a piece of coral [shell?] of the size of the finger. . . ." (op. cit., p. 276), but none of these was found at the site.

EAR ORNAMENTS

The Bayougoula men had pierced ears "in which they put a certain piece of wood of the size of the little finger," according to the log-book of *Le Marin* (loc. cit.). These ear-pins may well have been made of shell and similar to Natchez ear ornaments described by Du Pratz. These were women's earrings made of the core of a great shell called "burgo." "This ear pendant is as large as the little finger and at least as long. They have a hole in the lower part of each ear large enough to insert this ornament. It has a head a little larger than the rest to prevent it falling out." (Swanton, 1911, p. 55.)

Dumont says: "There are found besides on the shores of the sea beautiful shells of a spiral shape called 'burgau.' It is of these burgau that the savage women make their earrings. For this purpose they take the ends of them and rub them a long time on hard stones and thus give them the shape of a nail provided with a head. . . ." (Loc. cit.) No ear ornaments were found at the Bayou Goula site. However, the shell pin described above is not uncommonly found in Mississippi cultural assemblages.

SHELL GORGETS

Speaking probably of the Natchez, Dumont says: "The savages also wear on their necks plates about 3 or 4 inches in diameter, made of pieces of this shell [conch], which they shape in the same manner [by grinding] on stones and to which they give a round or oval shape. They then pierce them near the edge by means of fire and use them as ornaments." (Loc. cit.) Shell gorgets were not found at the Bayou Goula site, but since they are commonly found in assemblages of the Mississippi horizon and since there is documentation for their persistence into the historic horizon, their absence at the Bayou Goula site is somewhat surprising.

DISCUSSION

The correlations between the historical data and the archaeological findings are not very good. Some of the reasons for this are as follows: (1) The archaeological data are incomplete. (2) The French observers either ignored the material culture or did not describe it specifically enough to enable meaningful comparisons. (3) The continual splintering and amalgamating of lower Mississippi Valley tribes and the complicated commercial and social relations among them were confusing to the French observers. For these reasons only, although others could be added to the list, it is difficult to use the ethno-historical data from the lower Mississippi Valley for specific descriptions of tribal cultures. On a more abstract level and in a more general context these ethno-historical data are rewarding. As Swan-

ton (1911) used them, they can provide a general framework for a description of the general culture of the lower valley. But such a general picture is not of great use in a search for the particulars by which one can comprehend the form and process of the culture.

VII. Summary and Conclusions

The excavation of a part of the Bayou Goula site and the analysis and interpretation of the archaeological data obtained therefrom demonstrate a Plaquemine period occupancy underlying a historic period occupancy of the Natchezan type.

The data from the Plaquemine period component when added to those from the Gordon site (Cotter, 1952) and the Medora site (Quimby, 1951) can contribute to a more complete description of the Plaquemine complex. Moreover, physical stratigraphy at the Bayou Goula site definitely proves that the Plaquemine complex is older than the Natchezan complex. Still lacking, however, are data illustrating a development or step by step transition from Plaquemine into Natchezan.

Although the Natchezan culture type (Quimby, 1942a) is manifested in the historic occupancy of the site, the specific data seem inadequate for detailed analyses. For instance, the Bayou Goula site and/or its environs were occupied by at least five and perhaps seven different tribal groups at various times from 1699 to after 1722. These tribal groups were the Bayougoula, Mugulasha (Quinipissa), Acolapissa, Tiou, Taensa, Houma, and Chitimacha (cf. Swanton, 1911, 1946).

The Bayougoula, Mugulasha, Acolapissa-Tangipahoa, and Houma belonged to the Choctaw group of the Muskogean division of the Muskogean stock (Swanton, 1946, Table I). The Taensa belonged to the Natchez division of the Muskogean stock and the Tiou and Chitimacha belonged to the Tunican stock.

Despite their Tunican affiliations the Tiou were a Stinkard (lowest class) village of the Natchez proper and it was some of these Tiou who joined the Bayougoula in 1700. The Tiou were related to the Grigra and the Tunica proper but had moved southward some time before 1682.

The Taensa were living in northeastern Louisiana in 1682, but moved southward in 1706 because they feared the Yazoo and Chickasaw. The Taensa settled in the Bayougoula village and shortly thereafter drove away the Bayougoula. The Taensa abandoned the Bayougoula village by at least 1715 because of war with the Houma, and soon after this they settled near the French fort at present-day Mobile, Alabama. The Taensa were closely related to the Natchez and the Avoyel.

The Acolapissa were living in six villages near the mouth of the Pearl River in 1699. Formerly the Tangipahoa had constituted a seventh village of the Acolapissa. By 1722 the Acolapissa had moved to the Mississippi River and had begun amalgamation with the Bayougoula and Houma. From at least 1739 to 1750 the amalgamated tribes of Bayougoula, Acolapissa, and Houma seem to have been known as Acolapissa. After, perhaps, 1758 they were known as Houma.

When first encountered by the French in 1682 the Mugulasha were living in the vicinity of present-day New Orleans; by 1699 they had moved northward and were living with the Bayougoula who were at war with the Houma. In 1700 the Bayougoula attacked and destroyed most of the Mugulasha, perhaps because they were too friendly with the Houma. The surviving Mugulasha probably united with the Houma.

The Bayougoula may have occupied the Bayou Goula site as early as 1682, but they definitely were in the Bayou Goula area by 1699 and were then living with the Mugulasha. In 1700 the Bayougoula attacked and drove away the Mugulasha, who were replaced by families of Acolapissa and Tiou. Then in 1706 the Taensa came to live in the Bayougoula village, but presently they attacked the Bayougoula. The Bayougoula survivors moved southward and by 1725 had begun a fusion with the Acolapissa and Houma. In 1730 there was still a village or a place called the "Bayagoulas." By 1739 the Bayougoula were a part of the three amalgamated tribes at that time known as Acolapissa and after 1758 as Houma.

The Chitimacha lived west of the Mississippi in southern Louisiana when first encountered by the French. Their possible connections with the Bayou Goula site date from 1706 when some Chitimacha were enslaved by the Taensa, who by this time had massacred the Bayougoula and had continued to occupy the Bayou Goula site (Swanton, 1911, p. 337).

In 1718 some Chitimacha were settled in the vicinity of the Bayou Goula site, which by this time was a part of the concession of M. Paris (*op. cit.*, pp. 339-340).

The Houma, when first visited by the French in 1682, were living on the east side of the Mississippi opposite its confluence with the Red River. They probably were a branch of the Chakchiuma. In 1700 half of the Houma were destroyed by "an abdominal flux" and in 1706 the Tunica settled among them. Soon after moving into the Houma village the Tunica attacked the Houma and killed a considerable number. The survivors fled southward and settled first near New Orleans and later higher up the river in the Bayou Goula area. About 1725 the Houma combined with the Bayougoula and the Acolapissa, and by 1739, according to one contemporary authority, the combined tribes were called Acolapissa; but by 1758

this tribal combination was called Houma, and with many subsequent additions to their ancestry there are Houma living today in southern Louisiana.

The following brief summary presents in tabular form the tribal history of Indian groups connected with the Bayou Goula site.

- 1682: Mugulasha, then known only as Quinipissa; Pischenoa, who were possibly the Bayougoula of 1699; Houma; and Taensa were distinct groups. The Tunican Tiou, although a Natchez village of Stinkards, were also a separate entity.
- 1699: Bayougoula, Mugulasha, Houma, Taensa, Tiou, and Acolapissa were separate entities.
- 1700: Mugulasha remnants incorporated in Houma. Some probably already incorporated in Bayougoula. This was the end of Mugulasha as a tribal group. Some Acolapissa and Tiou probably subsumed by Bayougoula.
- 1706: Survivors among Bayougoula, perhaps including some Acolapissa and Tiou, and survivors among the Houma may have begun process of fusion. Taensa and main body of Acolapissa still distinct entities. Taensa had Chitimacha slaves.
- 1715: Taensa at Manchac. Shortly after this date they settled near present-day Mobile, Alabama. After this date the Taensa as a group were not in the Bayou Goula area.
- 1718-19: Some Chitimacha settled in vicinity of Bayou Goula site, by this time part of the concession of M. Paris.
- 1723: Bayougoula, Acolapissa, and Houma were in process of fusion.
- 1739: Bayougoula, Acolapissa, and Houma were one nation, known as Acolapissa.
- 1750: Bayougoula, Houma, and Acolapissa were one nation, known as Houma.

The critical problem is to decide which segment of this complicated history is represented by the available archaeological data.

It is my opinion that the architectural features, associated refuse pits, and burials represent an occupancy by an amalgamation of Bayougoula, Acolapissa, Houma, and perhaps some Chitimacha in the period between 1723 and 1739. About the only good evidence in support of this opinion is the French colonial coin, dated 1722, found in one of the large refuse pits associated with the house outlines. The coin could not have reached its place in the refuse pit before 1723, and by this date the Bayougoula, Acolapissa, and Houma were in process of fusion. Since some Chitimacha were in the vicinity by 1719, they too might well have been an additional ingredient in this aboriginal melting pot. Moreover, since the occupancy of the site in the period from 1723 to 1739 was on the concession of M. Paris, and since the documentary evidence implies that other amalgamated villages existed elsewhere in the lower valley, it is probable that the Bayou Goula site was the lesser of several villages of the Houma-Acolapissa-Bayougoula fusion during this period.

The rectangular house type found at the Bayou Goula site, if correctly dated, offers the possibility that the Houma and/or Chitimacha house had persisted, while the round or oval house outline of the Bayougoula and Acolapissa had dropped from use.

Other aspects of material culture recovered from the historic levels of the site are diagnostic of the generalized Natchezan culture and might well represent any segment or segments of time from before 1682 to after 1730.

It is possible, however, that Fatherland Incised pottery was made at the Bayou Goula site by the Tiou and/or the Taensa in the period from about 1700 to 1715. It is also possible that Bayou Goula Incised was the product of the Mugulasha and/or the Bayogoula and perhaps even the Acolapissa in the period from before 1700 to about 1706. Data that would help settle such specific problems are not available but might be made so by the excavation of sites of the Taensa, Tiou, Mugulasha, Acolapissa, and Chitimacha.

An additional observation not necessarily apparent from the archaeological data but obvious from the ethno-historical data involves the changing composition of lower Mississippi Valley communities. There seems to have been in operation a violent social process, involving warfare, by which the tribal and/or village communities fell apart and then formed new groupings from the remnants of the former groups. By means of this process more than ten distinct tribal and/or village groups existent before 1700 became three tribal groups by 1750.

Although this process of change of tribal composition may have been accelerated by the actions of the French, it was already in operation when they arrived, and probably is prehistoric.

In a somewhat different and broader context, Kroeber (1939, pp. 148, 220) has dealt with the warlike habits and ensuing consequences among eastern North American tribes in general.

Warfare and the frequently changing composition of former communities in the lower Mississippi Valley may throw alluvium in the eyes of the archaeologist, but they do illuminate a background of social forces that make intelligible such cultural phenomena as the Natchez class system (cf. Quimby, 1946), by means of which weaker remnants could be assimilated by a stronger remnant.

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